

Sequence Listing

<110> Ashkenazi, Avi
Baker Kevin P.
Botstein, David
Desnoyers, Luc
Eaton, Dan
Ferrara, Napoleon
Filvaroff, Ellen
Fong, Sherman
Gao, Wei-Qiang
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Hillan, Kenneth J
Kljavin, Ivar J.
Kuo, Sophia S.
Napier, Mary A.
Pan, James;
Paoni, Nicholas F.
Roy, Margaret Ann
Shelton, David L.
Stewart, Timothy A.
Tumas, Daniel
Williams, P. Mickey
Wood, William I.

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Glu	Gly	Glu	Asp	Ser	Ala	Met	Thr	Asp	Met	Pro	Pro	Thr	Glu	Glu	
				470					475					480	
Val	Thr	Asp	Ile	Val	Glu	Met	Arg	Glu	Glu	Asn	Glu				
				485					490						

<210> 8
 <211> 535
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 33, 66, 96, 387
 <223> unknown base

<400> 8
 cctgacagaa gtgccccgga gctgggggag atncaacatt aagaagatgc 50
 tgagctttctg gtgccttttg gctctaattc tggccacaca gagaancagt 100
 cggcctattg tcaacctott tgtttcccg gaccttggtg gcagttctgc 150
 agccacagag gcagtggcga ttttgacagc cacataccct gtgggtcaca 200
 tgccatacgg ctggttgacg gaaatccgtg ctgtgtatcc tgctttcgac 250
 aagaataacc ccagcaaca actggtgagc acgagcaaca cagtcacggc 300
 ggccacatc aagaagttca ccttcgtctg catggctctg tcaactcacgc 350
 tctgtttcgt gatgttttgg acaccaacg tgtctgngaa aatcttgata 400
 gacatcatcg gagtggactt tgcctttgca gaactctgtg ttgttccttt 450

gcggatcttc tcctttcttcc cagttccagt cacagtgagg gcgcatctca 500

ccgggtgggt gatgacactg aagaaaacct tcgtc 535

<210> 9

<211> 434

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 32, 54, 80, 111, 117, 122, 139, 193, 205, 221, 226, 228, 273,
293, 296, 305, 336, 358, 361

<223> unknown base

<400> 9

tgacggaatc ccgggctggg tatcctgggt tngacaagat aaacccccag 50

caanaaattg gggagcaggg caaaacagtn acgggcagcc cacatcaaga 100

agttcacctt ngtttgnatg gntctgtcaa ctcacgctnt gtttcgtgat 150

gttttgagca cccaaagtgt ttgagaaaat tttgatagac atnatcggag 200

tggantttgc ctttgcagaa ntttgnngtg ttcttttgcg gattttctcc 250

tttttcccag ttccagtcac agngaggggcg catctcaccg ggnggntgat 300

gacantgaag aaaacctttg tccttgcccc cagctntttg gtgcggatca 350

ttgtcctnat ngccagcctt gtggtcctac cctacctggg ggtgcacggt 400

gcgaccctgg gcgtgggttc cctcctggcg ggca 434

<210> 10

<211> 154

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 33, 49, 68, 83, 90, 98, 119

<223> unknown base

<400> 10

tattcccagt tccggtcacg gggagggcgc atntcaccgg gtggctgang 50

acactgaaga aaaccttngt ccttgcccc agntttgtgn tgcggaatnat 100

cgtcctcatc gccagcctng tggctctacc ctacctgggg gtgcaagggtg 150

agac 154

<210> 11

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 11
 ctgatccggt tcttggtgcc cctg 24

 <210> 12
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 12
 gctctgtcac tcacgctc 18

 <210> 13
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 13
 tcatctcttc cctctccc 18

 <210> 14
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 14
 ccttcgcga cggagttc 18

 <210> 15
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 15
 ggcaaagtcc actccgatga tgtc 24

 <210> 16
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 16
gcctgctgtg gtcacaggtc tccg 24

<210> 17

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 17

tcggggagca ggccttgaac cggggcattg ctgctgtcaa ggagg 45

<210> 18

<211> 1901

<212> DNA

<213> Homo sapiens

<400> 18

gccccgcgcc cggcgccggg cggccgaagc cgggagccac cgccatgggg 50
gcctgcctgg gagcctgtc cctgtcagc tgcgcgtcct gcctctgcgg 100
ctctgcccc tgcctcctgt gcagctgctg ccccgccagc cgcaactcca 150
ccgtgagccg cctcatcttc acgttcttcc tcttctggg ggtgctggtg 200
tccatcatta tgctgagccc gggcgtggag agtcagctct acaagctgcc 250
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gccacggcgg ccttcttctt cttctttttt accctgtcga tgctctgcgt 400
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taacgaggcc tcttcttctt cactctcttc ttctacttgc tgtcgatcgc 700
ggcgtggcg ctgatgttca tgtactacac tgagcccagc ggctgccacg 750
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ccctatccag tatccctgaa cagaaatgca accccattt gccaacccag 950

ctgggcaacg agacagttgt ggcaggcccc gagggctatg agacccagtg 1000
 gtgggatgcc ccgagcattg tgggcctcat catcttcctc ctgtgcaccc 1050
 tcttcatcag tctgcgctcc tcagaccacc ggcaggtgaa cagcctgatg 1100
 cagaccgagg agtgcccacc tatgctagac gccacacagc agcagcagca 1150
 gcaggtggca gcctgtgagg gccgggcctt tgacaacgag caggacggcg 1200
 tcacctacag ctactccttc ttccacttct gcctggtgct ggcctcactg 1250
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 caccaatcag ccaggtgag cccccacccc tgccccagct ccaggacctg 1550
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 ggggaactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800
 tggtcacgtc cccagggga cctgcccc ttctggact tcgtgcctta 1850
 ctgagtctct aagacttttt ctaataaaca agccagtgcg tgtaaaaaaa 1900

a 1901

<210> 19

<211> 457

<212> PRT

<213> Homo sapiens

<400> 19

Met	Gly	Ala	Cys	Leu	Gly	Ala	Cys	Ser	Leu	Leu	Ser	Cys	Ala	Ser
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Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Ile	Leu	Cys	Ser	Cys	Cys	Pro
				20					25					30

Ala	Ser	Arg	Asn	Ser	Thr	Val	Ser	Arg	Leu	Ile	Phe	Thr	Phe	Phe
				35					40					45

Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly
				50					55					60

Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly		65	70	75
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser		80	85	90
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala		95	100	105
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val	Ser		110	115	120
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe		125	130	135
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr		140	145	150
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val		155	160	165
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile		170	175	180
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu		185	190	195
Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr		200	205	210
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe		215	220	225
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe		230	235	240
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala		245	250	255
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu		260	265	270
Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser		275	280	285
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro		290	295	300
Thr	Gln	Leu	Gly	Asn	Glu	Thr	Val	Val	Ala	Gly	Pro	Glu	Gly	Tyr		305	310	315
Glu	Thr	Gln	Trp	Trp	Asp	Ala	Pro	Ser	Ile	Val	Gly	Leu	Ile	Ile		320	325	330
Phe	Leu	Leu	Cys	Thr	Leu	Phe	Ile	Ser	Leu	Arg	Ser	Ser	Asp	His		335	340	345
Arg	Gln	Val	Asn	Ser	Leu	Met	Gln	Thr	Glu	Glu	Cys	Pro	Pro	Met				

	350		355		360
Leu Asp Ala Thr	Gln Gln Gln Gln Gln	Gln Val Ala Ala Cys	Glu		
	365		370		375
Gly Arg Ala Phe	Asp Asn Glu Gln Asp	Gly Val Thr Tyr Ser	Tyr		
	380		385		390
Ser Phe Phe His	Phe Cys Leu Val Leu	Ala Ser Leu His Val	Met		
	395		400		405
Met Thr Leu Thr	Asn Trp Tyr Lys Pro	Gly Glu Thr Arg Lys	Met		
	410		415		420
Ile Ser Thr Trp	Thr Ala Val Trp Val	Lys Ile Cys Ala Ser	Trp		
	425		430		435
Ala Gly Leu Leu	Leu Tyr Leu Trp Thr	Leu Val Ala Pro Leu	Leu		
	440		445		450
Leu Arg Asn Arg	Asp Phe Ser				
	455				

<210> 20
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 gccgcctcat cttcacgttc ttcc 24

<210> 21
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 tcatccagct ggtgctgctc 20

<210> 22
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 22
 cttcttccac ttctgcctgg 20

<210> 23
 <211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 23
cctgggcaaa aatgcaac 18

<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 24
caggaatgta gaaggcaccc acgg 24

<210> 25
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
tggcacagat cttcacccac acgg 24

<210> 26
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
tgtccatcat tatgctgagc ccgggcgtgg agagtcagct ctacaagctg 50

<210> 27
<211> 1351
<212> DNA
<213> Homo sapiens

<400> 27
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ttaacctggg tcaaatgcac ggattctcac ctogtacagt tacgctctcc 100
cgcggcacgt ccgcgaggac ttgaagtcct gagcgctcaa gtttgtccgt 150
aggtcgagag aaggccatgg aggtgccgcc accggcaccg cggagctttc 200
tctgtagagc attgtgccta tttccccgag tctttgctgc cgaagctgtg 250

actgccgatt cggaagtcct tgaggagcgt cagaagcggc ttccctacgt 300
 cccagagccc tattaccgg aatctggatg ggaccgcctc cgggagctgt 350
 ttggcaaaga tgaacagcag agaatttcaa aggaccttgc taatatctgt 400
 aagacggcag ctacagcagg catcattggc tgggtgtatg ggggaatacc 450
 agctttttatt catgctaaac aacaatacat tgagcagagc caggcagaaa 500
 tttatcataa cgggtttgat gctgtgcaat ctgcacatcg tgctgccaca 550
 cgaggcttca ttcgttatgg ctggcgctgg ggttggagaa ctgcagtgtt 600
 tgtgactata ttcaacacag tgaacactag tctgaatgta taccgaaata 650
 aagatgcctt aagccatttt gtaattgcag gagctgtcac ggggaagtctt 700
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 gtactctcac tttacttata cttaaattta aatacatact tatgtttgta 1250
 ttaatctatc aatatatgca tacatggata tatccacca cctagatttt 1300
 aagcagtaaa taaaacattt cgcaaaagat taaagttgaa ttttacagtt 1350
 t 1351

<210> 28

<211> 285

<212> PRT

<213> Homo sapiens

<400> 28

Met	Glu	Val	Pro	Pro	Pro	Ala	Pro	Arg	Ser	Phe	Leu	Cys	Arg	Ala
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Leu	Cys	Leu	Phe	Pro	Arg	Val	Phe	Ala	Ala	Glu	Ala	Val	Thr	Ala
				20				25					30	

Asp	Ser	Glu	Val	Leu	Glu	Glu	Arg	Gln	Lys	Arg	Leu	Pro	Tyr	Val	35	40	45
Pro	Glu	Pro	Tyr	Tyr	Pro	Glu	Ser	Gly	Trp	Asp	Arg	Leu	Arg	Glu	50	55	60
Leu	Phe	Gly	Lys	Asp	Glu	Gln	Gln	Arg	Ile	Ser	Lys	Asp	Leu	Ala	65	70	75
Asn	Ile	Cys	Lys	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Ile	Gly	Trp	Val	80	85	90
Tyr	Gly	Gly	Ile	Pro	Ala	Phe	Ile	His	Ala	Lys	Gln	Gln	Tyr	Ile	95	100	105
Glu	Gln	Ser	Gln	Ala	Glu	Ile	Tyr	His	Asn	Arg	Phe	Asp	Ala	Val	110	115	120
Gln	Ser	Ala	His	Arg	Ala	Ala	Thr	Arg	Gly	Phe	Ile	Arg	Tyr	Gly	125	130	135
Trp	Arg	Trp	Gly	Trp	Arg	Thr	Ala	Val	Phe	Val	Thr	Ile	Phe	Asn	140	145	150
Thr	Val	Asn	Thr	Ser	Leu	Asn	Val	Tyr	Arg	Asn	Lys	Asp	Ala	Leu	155	160	165
Ser	His	Phe	Val	Ile	Ala	Gly	Ala	Val	Thr	Gly	Ser	Leu	Phe	Arg	170	175	180
Ile	Asn	Val	Gly	Leu	Arg	Gly	Leu	Val	Ala	Gly	Gly	Ile	Ile	Gly	185	190	195
Ala	Leu	Leu	Gly	Thr	Pro	Val	Gly	Gly	Leu	Leu	Met	Ala	Phe	Gln	200	205	210
Lys	Tyr	Ala	Gly	Glu	Thr	Val	Gln	Glu	Arg	Lys	Gln	Lys	Asp	Arg	215	220	225
Lys	Ala	Leu	His	Glu	Leu	Lys	Leu	Glu	Glu	Trp	Lys	Gly	Arg	Leu	230	235	240
Gln	Val	Thr	Glu	His	Leu	Pro	Glu	Lys	Ile	Glu	Ser	Ser	Leu	Arg	245	250	255
Glu	Asp	Glu	Pro	Glu	Asn	Asp	Ala	Lys	Lys	Ile	Glu	Ala	Leu	Leu	260	265	270
Asn	Leu	Pro	Arg	Asn	Pro	Ser	Val	Ile	Asp	Lys	Gln	Asp	Lys	Asp	275	280	285

<210> 29

<211> 324

<212> DNA

<213> Homo sapiens

<400> 29

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ctattacccg gaatctggat gggaccgctc cgggagctgt ttggcaaaga 100
tgaacagcag agaatttcaa aggaccttgc taatatctgt aagacggcag 150
ctacagcagg catcattggc tgggtgtatg ggggaatacc agcttttatt 200
catgctaaac aacaatacat tgagcagagc caggcagaaa tttatcataa 250
ccggtttgat gctgtgcaat ctgcacatcg tgctgccaca cgaggcttca 300
ttcgttcattg gctggcgccg aacc 324

<210> 30
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 262, 330, 371
<223> unknown base

<400> 30
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accgcggagc ttttttctgt agagcattgt gcctatttcc ccgagttttt 100
gctgccgaag ctgtgactgc cgattcggaa gtccttgagg agcgtcagaa 150
gcggcttccc tacgtcccag agccctatta cccggaattt ggatgggacc 200
gcctccggga gctgtttggc aaagatgaac agcagagaat ttcaaaggac 250
cttgctgata tntgtaagac ggcagctaca gcaggcatca ttggctgggt 300
gtatggggga ataccagctt ttattcatgn taaacaacaa tacattgagc 350
agagccaggc agaaatttat nataacc 377

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 31
tcgtacagtt acgctctccc 20

<210> 32
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 32
cttgaggagc gtcagaagcg 20

<210> 33
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
ataacgaatg aagcctcgtg 20

<210> 34
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 34
gctaatatct gtaagacggc agctacagca ggcatcattg 40

<210> 35
<211> 1819
<212> DNA
<213> Homo sapiens

<400> 35
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ccaccacagt ctgcgttgct gccccgcctg ggccaggccc caaaggcaag 100
gacaaagcag ctgtcaggga acctccgcgc gagtcgaatt tacgtgcagc 150
tgccggcaac cacagggttc aagatgggtt gcggggggtt cgcgtgttcc 200
aagaactgcc tgtgcgccct caacctgctt tacaccttgg ttagtctgct 250
gctaattgga attgctgcgt ggggcattgg ctccgggctg atttccagtc 300
tccgagtggc cggcgtggtc attgcagtgg gcattcttct gttcctgatt 350
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gctgtgttaa aagtgaccac tcgtgctcgc catgtgctcc aatcatagga 650
gaatatgctg gagaggtttt gagatttggt ggtggcattg gcctgttctt 700

cagttttaca gagatcctgg gtgtttggct gacctacaga tacaggaacc 750
 agaaagaccc ccgcgcgaat cctagtgcac tcctttgatg agaaaacaag 800
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 ggtggcacct ggaatttact gtattcattg tcgggcactg tccactgtgg 1050
 cctttcttag catttttacc tgcagaaaaa ctttgtatgg taccactgtg 1100
 ttggttatat ggtgaatctg aacgtacatc tcactggtat aattatatgt 1150
 agcactgtgc tgtgtagata gttcctactg gaaaaagagt ggaaatttat 1200
 taaaatcaga aagtatgaga tcctgttatg ttaagggaat tccaaattcc 1250
 caattttttt tgggtctttt aggaagattt gttgtggtaa aaagtgttag 1300
 tataaaaatg ataatttact tgtagtcttt tatgattaca ccaatgtatt 1350
 ctagaaatag ttatgtctta ggaaattgtg gtttaatttt tgacttttac 1400
 aggtaagtgc aaaggagaag tggtttcatg aaatgttcta atgtataata 1450
 acatttacct tcagcctcca tcagaatgga acgagttttg agtaatcagg 1500
 aagtatatct atatgatctt gatattgttt tataataatt tgaagtctaa 1550
 aagactgcat ttttaaacaa gttagtatta atgcgttggc ccacgtagca 1600
 aaaagatatt tgattatctt aaaaattgtt aaataaccgtt ttcattgaaat 1650
 ttctcagtat tgtaacagca acttgtcaaa cctaagcata tttgaatatg 1700
 atctcccata atttgaaatt gaaatcgtat tgtgtggctc tgtatattct 1750
 gttaaaaaat taaaggacag aaacctttct ttgtgtatgc atgtttgaat 1800
 taaaagaaag taatggaag 1819

<210> 36
 <211> 204
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Val Cys Gly Gly Phe Ala Cys Ser Lys Asn Cys Leu Cys Ala
 1 5 10 15
 Leu Asn Leu Leu Tyr Thr Leu Val Ser Leu Leu Leu Ile Gly Ile
 20 25 30

Ala	Ala	Trp	Gly	Ile	Gly	Phe	Gly	Leu	Ile	Ser	Ser	Leu	Arg	Val	
				35					40					45	
Val	Gly	Val	Val	Ile	Ala	Val	Gly	Ile	Phe	Leu	Phe	Leu	Ile	Ala	
				50					55					60	
Leu	Val	Gly	Leu	Ile	Gly	Ala	Val	Lys	His	His	Gln	Val	Leu	Leu	
				65					70					75	
Phe	Phe	Tyr	Met	Ile	Ile	Leu	Leu	Leu	Val	Phe	Ile	Val	Gln	Phe	
				80					85					90	
Ser	Val	Ser	Cys	Ala	Cys	Leu	Ala	Leu	Asn	Gln	Glu	Gln	Gln	Gly	
				95					100					105	
Gln	Leu	Leu	Glu	Val	Gly	Trp	Asn	Asn	Thr	Ala	Ser	Ala	Arg	Asn	
				110					115					120	
Asp	Ile	Gln	Arg	Asn	Leu	Asn	Cys	Cys	Gly	Phe	Arg	Ser	Val	Asn	
				125					130					135	
Pro	Asn	Asp	Thr	Cys	Leu	Ala	Ser	Cys	Val	Lys	Ser	Asp	His	Ser	
				140					145					150	
Cys	Ser	Pro	Cys	Ala	Pro	Ile	Ile	Gly	Glu	Tyr	Ala	Gly	Glu	Val	
				155					160					165	
Leu	Arg	Phe	Val	Gly	Gly	Ile	Gly	Leu	Phe	Phe	Ser	Phe	Thr	Glu	
				170					175					180	
Ile	Leu	Gly	Val	Trp	Leu	Thr	Tyr	Arg	Tyr	Arg	Asn	Gln	Lys	Asp	
				185					190					195	
Pro	Arg	Ala	Asn	Pro	Ser	Ala	Phe	Leu							
				200											

<210> 37
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 20, 35, 61, 83, 106, 130, 133, 187, 232, 260, 336
 <223> unknown base

<400> 37
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 tattctgtaa nttgtattta ttgttcagtt ttntgtatct tgcgcttggt 100
 tagccntgaa ccaggagcaa cagggtcagn ttntggaggt tggttggaac 150
 aatacggcaa gtgctcgaaa tgacatccag agaaatntaa actgctgtgg 200
 gttccgaagt gttaacccaa atgacacctg tntggctagc tgtgttaaaa 250
 gtgaccactn gtgctcgcca tgtgctccaa tcataggaga atatgctgga 300

gaggttttga gatttggttg tggcattggc ctgttnttca gttttacaga 350
gatcctgggt gtttggtga cctacagata caggaaccag 390

<210> 38
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 27
<223> unknown base

<400> 38
aatcccaaat tccccaattt ttttggncctt tttagggaaa gatgtgttgt 50
ggtaaaaagt gttagtataa aaatgataat ttacttgtag tcttttatga 100
ttacaccaat gtattctaga atagtattgt cttaggaaat tgtggtttaa 150
tttttgactt ttacaggtaa gtgcaaagga gaagtggttt catgaaatgt 200
tctaattgat aataacattt accttcagcc tcccatcaga atggaacgag 250
ttttgagtaa tccaggaagt atatctatat gatcttgata ttgttttata 300
taatttgaag tctaaaagac tgcattttta aacaagttag tattaatgcg 350
ttggcccacg tagcaaaaag atatttgatt atcttaaaaa ttgttaaata 400
ccgttttcat gaaagtctc agtattgtaa cagcaacttg tcaaacctaa 450
gcatatttga atatgatctc ccataatttg aaattgaaat cgtatttgtgt 500
ggaggaaatg gcaatcttat gtgtgctgaa ggacacagta agagcaccaa 550
gttgtgcccc acttgc 566

<210> 39
<211> 264
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 84-85, 206
<223> unknown base

<400> 39
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cttgtttagc ccctgaaacc aggagcaaca gggnnacgct tcttgagggt 100
tggttggtgcaa caatcacggc caagtgactc cgcaaatgac atcccagaga 150
aatcctaaac tgctgtgggt tccgaagtgt taacccaaat gacacctgtc 200

tggtctngctg tgttaaaagt gaccactcgt gctcgccatg tgctccaatc 250

ataggagaat atgc 264

<210> 40

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

acccacgtct gcgttgctgc c 21

<210> 41

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 41

gagaatatgc tggagagg 18

<210> 42

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 42

aggaatgcac taggattcgc gcgg 24

<210> 43

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 43

ggccccaaag gcaaggacaa agcagctgtc agggaaacctc cgccg 45

<210> 44

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 44

cagtcacat gaagctgggc tgtgtcctca tggcctgggc cctctacctt 50

tcccttggtg tgctctgggt ggcccagatg ctactggctg ccagttttga 100

gacgctgcag tgtgagggac ctgtctgcac tgaggagagc agctgccaca 150
 cggaggatga cttgactgat gcaaggggaag ctggcttcca ggtcaaggcc 200
 tacactttca gtgaaccctt ccacctgatt gtgtcctatg actggctgat 250
 cctccaaggt ccagccaagc cagtttttga aggggacctg ctggttctgc 300
 gctgccaggc ctggcaagac tggccactga ctcaggtgac cttctaccga 350
 gatggctcag ctctgggtcc ccccgggcct aacagggaat tctccatcac 400
 cgtggtacaa aaggcagaca gcgggcacta ccactgcagt ggcattcttc 450
 agagccctgg tcctgggatc ccagaaacag catctgttgt ggctatcaca 500
 gtccaagaac tgtttccagc gccaatcttc agagctgtac cctcagctga 550
 accccaagca ggaagcccca tgaccctgag ttgtcagaca aagttgcccc 600
 tgcagaggtc agctgcccgc ctctcttctt ccttctacaa ggatggaagg 650
 atagtgcaaa gcagggggct ctctcagaa ttccagatcc ccacagcttc 700
 agaagatcac tccgggtcat actggtgtga ggcagccact gaggacaacc 750
 aagtttgga acagagcccc cagctagaga tcagagtga ggggtgcttc 800
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 tccaggaact gctcctgagg aggccctgg gcctctgct cgcgcgcaa 900
 ccccatcttc tgaggatcca ggcttttctt ctctctggg gatgccagat 950
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 cttcctgtcc tgcacatatg cataagtact tttacaagtt gtcccagtgt 1200
 tttgttagaa taatgtagtt aggtgagtgt aaataaattt atataaagt 1250
 agaattagag tttagctata attgtgtatt ctctcttaac acaacagaat 1300
 tctgctgtct agatcaggaa tttctatctg ttatatcgac cagaatgttg 1350
 tgatttaaag agaactaatg gaagtggatt gaatacagca gtctcaactg 1400
 ggggcaattt tgccccccag aggacattgg gcaatgtttg gagacatttt 1450
 ggtcattata cttggggggg tgggggatgg tgggatgtgt gtctactggc 1500
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 gagtttgaga aaccccagcc taatgaaacc ctaggtgttg ggctctggaa 1650
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 ttcttactga cataaccagtc tttagctggt gctatggtct gttctttagt 1750
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 ggtgatggca ttaagaagtg ggcctttggg aagtgattag atcaggagtg 1850
 cagagccctc atgattagga ttagtgcoct tatttaaaaa ggccccagag 1900
 agctaactca cccttccacc atatgaggac gtggcaagaa gatgacatgt 1950
 atgagaacca aaaaacagct gtcgccaac accgactctg tcgttgccctt 2000
 gatcttgaac ttccagcctc cagaactatg agaaataaaa ttctggttgt 2050
 ttgtagccta a 2061

<210> 45

<211> 359

<212> PRT

<213> Homo sapiens

<400> 45

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Leu	Gly	Val	Leu	Trp	Val	Ala	Gln	Met	Leu	Leu	Ala	Ala	Ser	Phe	20	25	30	
Glu	Thr	Leu	Gln	Cys	Glu	Gly	Pro	Val	Cys	Thr	Glu	Glu	Ser	Ser	35	40	45	
Cys	His	Thr	Glu	Asp	Asp	Leu	Thr	Asp	Ala	Arg	Glu	Ala	Gly	Phe	50	55	60	
Gln	Val	Lys	Ala	Tyr	Thr	Phe	Ser	Glu	Pro	Phe	His	Leu	Ile	Val	65	70	75	
Ser	Tyr	Asp	Trp	Leu	Ile	Leu	Gln	Gly	Pro	Ala	Lys	Pro	Val	Phe	80	85	90	
Glu	Gly	Asp	Leu	Leu	Val	Leu	Arg	Cys	Gln	Ala	Trp	Gln	Asp	Trp	95	100	105	
Pro	Leu	Thr	Gln	Val	Thr	Phe	Tyr	Arg	Asp	Gly	Ser	Ala	Leu	Gly	110	115	120	
Pro	Pro	Gly	Pro	Asn	Arg	Glu	Phe	Ser	Ile	Thr	Val	Val	Gln	Lys	125	130	135	
Ala	Asp	Ser	Gly	His	Tyr	His	Cys	Ser	Gly	Ile	Phe	Gln	Ser	Pro	140	145	150	

Gly	Pro	Gly	Ile	Pro	Glu	Thr	Ala	Ser	Val	Val	Ala	Ile	Thr	Val	
				155					160					165	
Gln	Glu	Leu	Phe	Pro	Ala	Pro	Ile	Leu	Arg	Ala	Val	Pro	Ser	Ala	
				170					175					180	
Glu	Pro	Gln	Ala	Gly	Ser	Pro	Met	Thr	Leu	Ser	Cys	Gln	Thr	Lys	
				185					190					195	
Leu	Pro	Leu	Gln	Arg	Ser	Ala	Ala	Arg	Leu	Leu	Phe	Ser	Phe	Tyr	
				200					205					210	
Lys	Asp	Gly	Arg	Ile	Val	Gln	Ser	Arg	Gly	Leu	Ser	Ser	Glu	Phe	
				215					220					225	
Gln	Ile	Pro	Thr	Ala	Ser	Glu	Asp	His	Ser	Gly	Ser	Tyr	Trp	Cys	
				230					235					240	
Glu	Ala	Ala	Thr	Glu	Asp	Asn	Gln	Val	Trp	Lys	Gln	Ser	Pro	Gln	
				245					250					255	
Leu	Glu	Ile	Arg	Val	Gln	Gly	Ala	Ser	Ser	Ser	Ala	Ala	Pro	Pro	
				260					265					270	
Thr	Leu	Asn	Pro	Ala	Pro	Gln	Lys	Ser	Ala	Ala	Pro	Gly	Thr	Ala	
				275					280					285	
Pro	Glu	Glu	Ala	Pro	Gly	Pro	Leu	Pro	Pro	Pro	Pro	Thr	Pro	Ser	
				290					295					300	
Ser	Glu	Asp	Pro	Gly	Phe	Ser	Ser	Pro	Leu	Gly	Met	Pro	Asp	Pro	
				305					310					315	
His	Leu	Tyr	His	Gln	Met	Gly	Leu	Leu	Leu	Lys	His	Met	Gln	Asp	
				320					325					330	
Val	Arg	Val	Leu	Leu	Gly	His	Leu	Leu	Met	Glu	Leu	Arg	Glu	Leu	
				335					340					345	
Ser	Gly	His	Gln	Lys	Pro	Gly	Thr	Thr	Lys	Ala	Thr	Ala	Glu		
				350					355						

<210> 46

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

tgggctgtgt cctcatgg 18

<210> 47

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
tttccagcgc caattctc 18

<210> 48
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48
agttcttgga ctgtgatagc cac 23

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 49
aaacttggtt gtcctcagtg gctg 24

<210> 50
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 50
gtgagggacc tgtctgcact gaggagagca gctgccacac ggagg 45

<210> 51
<211> 2181
<212> DNA
<213> Homo sapiens

<400> 51
cccacgcgtc cgcccacgcg tccgcccacg ggtccgcca cgcgccggg 50
ccaccagaag tttgagcctc tttggtagca ggaggctgga agaaaggaca 100
gaagtagctc tggctgtgat ggggatctta ctgggcctgc tactcctggg 150
gcacctaaca gtggacactt atggccgtcc catcctggaa gtgccagaga 200
gtgtaacagg accttgga aa ggggatgtga atcttccctg cacctatgac 250
cccctgcaag gctacacca agtcttggtg aagtggctgg tacaacgtgg 300
ctcagaccct gtcaccatct ttctacgtga ctcttctgga gaccatatcc 350

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 cacgtgtgaa gtcacctggc agactcctga tggcaaccaa gtcgtgagag 500
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 accttactct tcaagcctgc ggtgatagcc gactcaggct cctatttctg 750
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 aggctcagct ctgccagctc agaggaccag ctatatccag gatcatttct 2050
 ctttcttcag ggccagacag cttttaattg aaattgttat ttcacaggcc 2100
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<210> 52

<211> 321

<212> PRT

<213> Homo sapiens

<400> 52

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Asp	Thr	Tyr	Gly	Arg	Pro	Ile	Leu	Glu	Val	Pro	Glu	Ser	Val	Thr
				20					25					30
Gly	Pro	Trp	Lys	Gly	Asp	Val	Asn	Leu	Pro	Cys	Thr	Tyr	Asp	Pro
				35					40					45
Leu	Gln	Gly	Tyr	Thr	Gln	Val	Leu	Val	Lys	Trp	Leu	Val	Gln	Arg
				50					55					60
Gly	Ser	Asp	Pro	Val	Thr	Ile	Phe	Leu	Arg	Asp	Ser	Ser	Gly	Asp
				65					70					75
His	Ile	Gln	Gln	Ala	Lys	Tyr	Gln	Gly	Arg	Leu	His	Val	Ser	His
				80					85					90
Lys	Val	Pro	Gly	Asp	Val	Ser	Leu	Gln	Leu	Ser	Thr	Leu	Glu	Met
				95					100					105
Asp	Asp	Arg	Ser	His	Tyr	Thr	Cys	Glu	Val	Thr	Trp	Gln	Thr	Pro
				110					115					120
Asp	Gly	Asn	Gln	Val	Val	Arg	Asp	Lys	Ile	Thr	Glu	Leu	Arg	Val
				125					130					135
Gln	Lys	Leu	Ser	Val	Ser	Lys	Pro	Thr	Val	Thr	Thr	Gly	Ser	Gly
				140					145					150
Tyr	Gly	Phe	Thr	Val	Pro	Gln	Gly	Met	Arg	Ile	Ser	Leu	Gln	Cys
				155					160					165
Gln	Ala	Arg	Gly	Ser	Pro	Pro	Ile	Ser	Tyr	Ile	Trp	Tyr	Lys	Gln
				170					175					180

Gln	Thr	Asn	Asn	Gln	Glu	Pro	Ile	Lys	Val	Ala	Thr	Leu	Ser	Thr	
				185					190					195	
Leu	Leu	Phe	Lys	Pro	Ala	Val	Ile	Ala	Asp	Ser	Gly	Ser	Tyr	Phe	
				200					205					210	
Cys	Thr	Ala	Lys	Gly	Gln	Val	Gly	Ser	Glu	Gln	His	Ser	Asp	Ile	
				215					220					225	
Val	Lys	Phe	Val	Val	Lys	Asp	Ser	Ser	Lys	Leu	Leu	Lys	Thr	Lys	
				230					235					240	
Thr	Glu	Ala	Pro	Thr	Thr	Met	Thr	Tyr	Pro	Leu	Lys	Ala	Thr	Ser	
				245					250					255	
Thr	Val	Lys	Gln	Ser	Trp	Asp	Trp	Thr	Thr	Asp	Met	Asp	Gly	Tyr	
				260					265					270	
Leu	Gly	Glu	Thr	Ser	Ala	Gly	Pro	Gly	Lys	Ser	Leu	Pro	Val	Phe	
				275					280					285	
Ala	Ile	Ile	Leu	Ile	Ile	Ser	Leu	Cys	Cys	Met	Val	Val	Phe	Thr	
				290					295					300	
Met	Ala	Tyr	Ile	Met	Leu	Cys	Arg	Lys	Thr	Ser	Gln	Gln	Glu	His	
				305					310					315	
Val	Tyr	Glu	Ala	Ala	Arg										
				320											

<210> 53
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 53
 tatccctcca attgagcacc ctgg 24

<210> 54
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 54
 gtoggaagac atcccaacaa g 21

<210> 55
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 55

cttcacaatg tcgctgtgct gctc 24

<210> 56

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 56

agccaaatcc agcagctggc ttac 24

<210> 57

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 57

tgatgaccg gagccactac acgtgtgaag tcacctggca gactcctgat 50

<210> 58

<211> 2458

<212> DNA

<213> Homo sapiens

<400> 58

gcgcgggag cccatctgcc cccaggggca cggggcgcg ggcgggctcc 50

cgcccgccac atggctgcag ccacctgcg cgcaccccgga ggcgcgcgc 100

ccagctcgcc cgaggtccgt cggaggcgcc cggccgcccc ggagccaagc 150

agcaactgag cggggaagcg cccgcgtccg gggatcggga tgtccctcct 200

ccttctctc ttgctagttt cctactatgt tggaaccttg gggactcaca 250

ctgagatcaa gagagtggca gaggaaaagg tcactttgcc ctgccaccat 300

caactggggc ttccagaaaa agacactctg gatattgaat ggctgctcac 350

cgataatgaa gggaacaaaa aagtggatgat cacttactcc agtcgtcatg 400

tctacaataa cttgactgag gaacagaagg gccgagtggc ctttgcttcc 450

aatttcctgg caggagatgc ctccttgacg attgaacctc tgaagcccag 500

tgatgagggc cggtagacct gtaagggtta gaattcaggg cgctacgtgt 550

ggagccatgt catcttaaaa gtcttagtga gaccatccaa gccaagtgt 600

gagttggaag gagagctgac agaaggaagt gacctgactt tgcagtgtga 650

gtcatcctct ggcacagagc ccattgtgta ttactggcag cgaatccgag 700
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 tgcgagtaac tgtacagtat gtacaaagca tcggcatggg tgcaggagca 900
 gtgacaggca tagtggctgg agccctgctg attttcctct tgggtgtggct 950
 gctaataccga aggaagaca aagaaagata tgaggaagaa gagagaccta 1000
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 agctcctctt cctcaggctc tcggagctca cgctctgggt cttcctccac 1100
 tcgctccaca gcaaatagtg cctcacgcag ccagcggaca ctgtcaactg 1150
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 ccagaggtga gaggttctga accaaagaaa gtccaccatg ctaatctgac 1250
 caaagcagaa accacacca gcatgatccc cagccagagc agagccttcc 1300
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<210> 59

<211> 373

<212> PRT

<213> Homo sapiens

<400> 59

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Val	Thr	Leu	Pro	Cys	His	His	Gln	Leu	Gly	Leu	Pro	Glu	Lys	Asp	35	40	45	
Thr	Leu	Asp	Ile	Glu	Trp	Leu	Leu	Thr	Asp	Asn	Glu	Gly	Asn	Gln	50	55	60	
Lys	Val	Val	Ile	Thr	Tyr	Ser	Ser	Arg	His	Val	Tyr	Asn	Asn	Leu	65	70	75	
Thr	Glu	Glu	Gln	Lys	Gly	Arg	Val	Ala	Phe	Ala	Ser	Asn	Phe	Leu	80	85	90	
Ala	Gly	Asp	Ala	Ser	Leu	Gln	Ile	Glu	Pro	Leu	Lys	Pro	Ser	Asp	95	100	105	
Glu	Gly	Arg	Tyr	Thr	Cys	Lys	Val	Lys	Asn	Ser	Gly	Arg	Tyr	Val	110	115	120	
Trp	Ser	His	Val	Ile	Leu	Lys	Val	Leu	Val	Arg	Pro	Ser	Lys	Pro	125	130	135	
Lys	Cys	Glu	Leu	Glu	Gly	Glu	Leu	Thr	Glu	Gly	Ser	Asp	Leu	Thr	140	145	150	
Leu	Gln	Cys	Glu	Ser	Ser	Ser	Gly	Thr	Glu	Pro	Ile	Val	Tyr	Tyr	155	160	165	
Trp	Gln	Arg	Ile	Arg	Glu	Lys	Glu	Gly	Glu	Asp	Glu	Arg	Leu	Pro	170	175	180	

Pro Lys Ser Arg	Ile Asp Tyr Asn His	Pro Gly Arg Val Leu Leu
185	190	195
Gln Asn Leu Thr	Met Ser Tyr Ser Gly	Leu Tyr Gln Cys Thr Ala
200	205	210
Gly Asn Glu Ala	Gly Lys Glu Ser Cys	Val Val Arg Val Thr Val
215	220	225
Gln Tyr Val Gln	Ser Ile Gly Met Val	Ala Gly Ala Val Thr Gly
230	235	240
Ile Val Ala Gly	Ala Leu Leu Ile Phe	Leu Leu Val Trp Leu Leu
245	250	255
Ile Arg Arg Lys	Asp Lys Glu Arg Tyr	Glu Glu Glu Glu Arg Pro
260	265	270
Asn Glu Ile Arg	Glu Asp Ala Glu Ala	Pro Lys Ala Arg Leu Val
275	280	285
Lys Pro Ser Ser	Ser Ser Ser Gly Ser	Arg Ser Ser Arg Ser Gly
290	295	300
Ser Ser Ser Thr	Arg Ser Thr Ala Asn	Ser Ala Ser Arg Ser Gln
305	310	315
Arg Thr Leu Ser	Thr Asp Ala Ala Pro	Gln Pro Gly Leu Ala Thr
320	325	330
Gln Ala Tyr Ser	Leu Val Gly Pro Glu	Val Arg Gly Ser Glu Pro
335	340	345
Lys Lys Val His	His Ala Asn Leu Thr	Lys Ala Glu Thr Thr Pro
350	355	360
Ser Met Ile Pro	Ser Gln Ser Arg Ala	Phe Gln Thr Val
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<210> 60

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 60

ccagtgcaca gcaggcaacg aagc 24

<210> 61

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 61
actaggctgt atgcctgggt gggc 24

<210> 62

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 62

gtatgtacaa agcatcggca tggttgcagg agcagtgaca ggc 43

<210> 63

<211> 3534

<212> DNA

<213> Homo sapiens

<400> 63

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<210> 64

<211> 655

<212> PRT

<213> Homo sapiens

<400> 64

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Arg	Ile	Ala	Arg	Arg	Ala	Thr	Ala	Thr	Met	Ile	Ala	Gly	Ser	Leu
				20					25					30

Leu	Leu	Leu	Gly	Phe	Leu	Ser	Thr	Thr	Thr	Ala	Gln	Pro	Glu	Gln	
				35						40				45	
Lys	Ala	Ser	Asn	Leu	Ile	Gly	Thr	Tyr	Arg	His	Val	Asp	Arg	Ala	
				50					55					60	
Thr	Gly	Gln	Val	Leu	Thr	Cys	Asp	Lys	Cys	Pro	Ala	Gly	Thr	Tyr	
				65					70					75	
Val	Ser	Glu	His	Cys	Thr	Asn	Thr	Ser	Leu	Arg	Val	Cys	Ser	Ser	
				80					85					90	
Cys	Pro	Val	Gly	Thr	Phe	Thr	Arg	His	Glu	Asn	Gly	Ile	Glu	Lys	
				95					100					105	
Cys	His	Asp	Cys	Ser	Gln	Pro	Cys	Pro	Trp	Pro	Met	Ile	Glu	Lys	
				110					115					120	
Leu	Pro	Cys	Ala	Ala	Leu	Thr	Asp	Arg	Glu	Cys	Thr	Cys	Pro	Pro	
				125					130					135	
Gly	Met	Phe	Gln	Ser	Asn	Ala	Thr	Cys	Ala	Pro	His	Thr	Val	Cys	
				140					145					150	
Pro	Val	Gly	Trp	Gly	Val	Arg	Lys	Lys	Gly	Thr	Glu	Thr	Glu	Asp	
				155					160					165	
Val	Arg	Cys	Lys	Gln	Cys	Ala	Arg	Gly	Thr	Phe	Ser	Asp	Val	Pro	
				170					175					180	
Ser	Ser	Val	Met	Lys	Cys	Lys	Ala	Tyr	Thr	Asp	Cys	Leu	Ser	Gln	
				185					190					195	
Asn	Leu	Val	Val	Ile	Lys	Pro	Gly	Thr	Lys	Glu	Thr	Asp	Asn	Val	
				200					205					210	
Cys	Gly	Thr	Leu	Pro	Ser	Phe	Ser	Ser	Ser	Thr	Ser	Pro	Ser	Pro	
				215					220					225	
Gly	Thr	Ala	Ile	Phe	Pro	Arg	Pro	Glu	His	Met	Glu	Thr	His	Glu	
				230					235					240	
Val	Pro	Ser	Ser	Thr	Tyr	Val	Pro	Lys	Gly	Met	Asn	Ser	Thr	Glu	
				245					250					255	
Ser	Asn	Ser	Ser	Ala	Ser	Val	Arg	Pro	Lys	Val	Leu	Ser	Ser	Ile	
				260					265					270	
Gln	Glu	Gly	Thr	Val	Pro	Asp	Asn	Thr	Ser	Ser	Ala	Arg	Gly	Lys	
				275					280					285	
Glu	Asp	Val	Asn	Lys	Thr	Leu	Pro	Asn	Leu	Gln	Val	Val	Asn	His	
				290					295					300	
Gln	Gln	Gly	Pro	His	His	Arg	His	Ile	Leu	Lys	Leu	Leu	Pro	Ser	
				305					310					315	
Met	Glu	Ala	Thr	Gly	Gly	Glu	Lys	Ser	Ser	Thr	Pro	Ile	Lys	Gly	

Glu Glu Ile Pro Gln Ala Glu Asp Lys Leu Asp Arg Leu Phe Glu
620 625 630

Ile Ile Gly Val Lys Ser Gln Glu Ala Ser Gln Thr Leu Leu Asp
635 640 645

Ser Val Tyr Ser His Leu Pro Asp Leu Leu
650 655

<210> 65

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 65

gtagcagtgc acatggggtg ttgg 24

<210> 66

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 66

accgcacatc ctcaagtctct gtcc 24

<210> 67

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 67

acgatgatcg cgggctccct tctcctgctt ggattcctta gcaccaccac 50

<210> 68

<211> 2412

<212> DNA

<213> Homo sapiens

<400> 68

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<210> 69

<211> 453

<212> PRT

<213> Homo sapiens

<400> 69

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				20					25					30
Pro	Asp	Ala	Asp	Ala	Val	Ala	Ala	Gln	Ile	Leu	Ser	Leu	Leu	Pro
				35					40					45
Leu	Lys	Phe	Phe	Pro	Ile	Ile	Val	Ile	Gly	Ile	Ile	Ala	Leu	Ile
				50					55					60
Leu	Ala	Leu	Ala	Ile	Gly	Leu	Gly	Ile	His	Phe	Asp	Cys	Ser	Gly
				65					70					75
Lys	Tyr	Arg	Cys	Arg	Ser	Ser	Phe	Lys	Cys	Ile	Glu	Leu	Ile	Ala
				80					85					90
Arg	Cys	Asp	Gly	Val	Ser	Asp	Cys	Lys	Asp	Gly	Glu	Asp	Glu	Tyr
				95					100					105
Arg	Cys	Val	Arg	Val	Gly	Gly	Gln	Asn	Ala	Val	Leu	Gln	Val	Phe

				110					115					120
Thr	Ala	Ala	Ser	Trp 125	Lys	Thr	Met	Cys	Ser 130	Asp	Asp	Trp	Lys	Gly 135
His	Tyr	Ala	Asn	Val 140	Ala	Cys	Ala	Gln	Leu 145	Gly	Phe	Pro	Ser	Tyr 150
Val	Ser	Ser	Asp	Asn 155	Leu	Arg	Val	Ser	Ser 160	Leu	Glu	Gly	Gln	Phe 165
Arg	Glu	Glu	Phe	Val 170	Ser	Ile	Asp	His	Leu 175	Leu	Pro	Asp	Asp	Lys 180
Val	Thr	Ala	Leu	His 185	His	Ser	Val	Tyr	Val 190	Arg	Glu	Gly	Cys	Ala 195
Ser	Gly	His	Val	Val 200	Thr	Leu	Gln	Cys	Thr 205	Ala	Cys	Gly	His	Arg 210
Arg	Gly	Tyr	Ser	Ser 215	Arg	Ile	Val	Gly	Gly 220	Asn	Met	Ser	Leu	Leu 225
Ser	Gln	Trp	Pro	Trp 230	Gln	Ala	Ser	Leu	Gln 235	Phe	Gln	Gly	Tyr	His 240
Leu	Cys	Gly	Gly	Ser 245	Val	Ile	Thr	Pro	Leu 250	Trp	Ile	Ile	Thr	Ala 255
Ala	His	Cys	Val	Tyr 260	Asp	Leu	Tyr	Leu	Pro 265	Lys	Ser	Trp	Thr	Ile 270
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Leu	Val	Glu	Lys	Ile 290	Val	Tyr	His	Ser	Lys 295	Tyr	Lys	Pro	Lys	Arg 300
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Phe	Asn	Glu	Met	Ile 320	Gln	Pro	Val	Cys	Leu 325	Pro	Asn	Ser	Glu	Glu 330
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Thr	Glu	Asp	Gly	Gly 350	Asp	Ala	Ser	Pro	Val 355	Leu	Asn	His	Ala	Ala 360
Val	Pro	Leu	Ile	Ser 365	Asn	Lys	Ile	Cys	Asn 370	His	Arg	Asp	Val	Tyr 375
Gly	Gly	Ile	Ile	Ser 380	Pro	Ser	Met	Leu	Cys 385	Ala	Gly	Tyr	Leu	Thr 390
Gly	Gly	Val	Asp	Ser 395	Cys	Gln	Gly	Asp	Ser 400	Gly	Gly	Pro	Leu	Val 405

Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe
410 415 420

Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg
425 430 435

Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp
440 445 450

Leu Lys Thr

<210> 70

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

tgacatcgcc cttatgaagc tggc 24

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

tacacgtccc tgtggttgca gatc 24

<210> 72

<211> 50

<212> DNA

<213> Artificial Sequence

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<400> 72

cgttcaatgc agaaatgatc cagcctgtgt gcctgcccac ctctgaagag 50

<210> 73

<211> 3305

<212> DNA

<213> Homo sapiens

<400> 73

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 <211> 735
 <212> PRT
 <213> Homo sapiens

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 Val Ser Leu Trp Asn Gln Gly Arg Ala Asp Glu Val Val Ser Ala
 35 40 45
 Ser Val Arg Ser Gly Asp Leu Trp Ile Pro Val Lys Ser Phe Asp
 50 55 60
 Ser Lys Asn His Pro Glu Val Leu Asn Ile Arg Leu Gln Arg Glu
 65 70 75
 Ser Lys Glu Leu Ile Ile Asn Leu Glu Arg Asn Glu Gly Leu Ile
 80 85 90
 Ala Ser Ser Phe Thr Glu Thr His Tyr Leu Gln Asp Gly Thr Asp
 95 100 105
 Val Ser Leu Ala Arg Asn Tyr Thr Gly His Cys Tyr Tyr His Gly
 110 115 120
 His Val Arg Gly Tyr Ser Asp Ser Ala Val Ser Leu Ser Thr Cys
 125 130 135
 Ser Gly Leu Arg Gly Leu Ile Val Phe Glu Asn Glu Ser Tyr Val
 140 145 150
 Leu Glu Pro Met Lys Ser Ala Thr Asn Arg Tyr Lys Leu Phe Pro
 155 160 165
 Ala Lys Lys Leu Lys Ser Val Arg Gly Ser Cys Gly Ser His His
 170 175 180
 Asn Thr Pro Asn Leu Ala Ala Lys Asn Val Phe Pro Pro Pro Ser
 185 190 195
 Gln Thr Trp Ala Arg Arg His Lys Arg Glu Thr Leu Lys Ala Thr
 200 205 210

Lys Tyr Val Glu	Leu Val Ile Val Ala	Asp Asn Arg Glu Phe Gln
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Arg Gln Gly Lys	Asp Leu Glu Lys Val	Lys Gln Arg Leu Ile Glu
230		235 240
Ile Ala Asn His	Val Asp Lys Phe Tyr	Arg Pro Leu Asn Ile Arg
245		250 255
Ile Val Leu Val	Gly Val Glu Val Trp	Asn Asp Met Asp Lys Cys
260		265 270
Ser Val Ser Gln	Asp Pro Phe Thr Ser	Leu His Glu Phe Leu Asp
275		280 285
Trp Arg Lys Met	Lys Leu Leu Pro Arg	Lys Ser His Asp Asn Ala
290		295 300
Gln Leu Val Ser	Gly Val Tyr Phe Gln	Gly Thr Thr Ile Gly Met
305		310 315
Ala Pro Ile Met	Ser Met Cys Thr Ala	Asp Gln Ser Gly Gly Ile
320		325 330
Val Met Asp His	Ser Asp Asn Pro Leu	Gly Ala Ala Val Thr Leu
335		340 345
Ala His Glu Leu	Gly His Asn Phe Gly	Met Asn His Asp Thr Leu
350		355 360
Asp Arg Gly Cys	Ser Cys Gln Met Ala	Val Glu Lys Gly Gly Cys
365		370 375
Ile Met Asn Ala	Ser Thr Gly Tyr Pro	Phe Pro Met Val Phe Ser
380		385 390
Ser Cys Ser Arg	Lys Asp Leu Glu Thr	Ser Leu Glu Lys Gly Met
395		400 405
Gly Val Cys Leu	Phe Asn Leu Pro Glu	Val Arg Glu Ser Phe Gly
410		415 420
Gly Gln Lys Cys	Gly Asn Arg Phe Val	Glu Glu Gly Glu Glu Cys
425		430 435
Asp Cys Gly Glu	Pro Glu Glu Cys Met	Asn Arg Cys Cys Asn Ala
440		445 450
Thr Thr Cys Thr	Leu Lys Pro Asp Ala	Val Cys Ala His Gly Leu
455		460 465
Cys Cys Glu Asp	Cys Gln Leu Lys Pro	Ala Gly Thr Ala Cys Arg
470		475 480
Asp Ser Ser Asn	Ser Cys Asp Leu Pro	Glu Phe Cys Thr Gly Ala
485		490 495
Ser Pro His Cys	Pro Ala Asn Val Tyr	Leu His Asp Gly His Ser

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Cys	Gln	Asp	Val	Asp	Gly	Tyr	Cys	Tyr	Asn	Gly	Ile	Cys	Gln	Thr
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His	Glu	Gln	Gln	Cys	Val	Thr	Leu	Trp	Gly	Pro	Gly	Ala	Lys	Pro
				530					535					540
Ala	Pro	Gly	Ile	Cys	Phe	Glu	Arg	Val	Asn	Ser	Ala	Gly	Asp	Pro
				545					550					555
Tyr	Gly	Asn	Cys	Gly	Lys	Val	Ser	Lys	Ser	Ser	Phe	Ala	Lys	Cys
				560					565					570
Glu	Met	Arg	Asp	Ala	Lys	Cys	Gly	Lys	Ile	Gln	Cys	Gln	Gly	Gly
				575					580					585
Ala	Ser	Arg	Pro	Val	Ile	Gly	Thr	Asn	Ala	Val	Ser	Ile	Glu	Thr
				590					595					600
Asn	Ile	Pro	Leu	Gln	Gln	Gly	Gly	Arg	Ile	Leu	Cys	Arg	Gly	Thr
				605					610					615
His	Val	Tyr	Leu	Gly	Asp	Asp	Met	Pro	Asp	Pro	Gly	Leu	Val	Leu
				620					625					630
Ala	Gly	Thr	Lys	Cys	Ala	Asp	Gly	Lys	Ile	Cys	Leu	Asn	Arg	Gln
				635					640					645
Cys	Gln	Asn	Ile	Ser	Val	Phe	Gly	Val	His	Glu	Cys	Ala	Met	Gln
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Cys	His	Gly	Arg	Gly	Val	Cys	Asn	Asn	Arg	Lys	Asn	Cys	His	Cys
				665					670					675
Glu	Ala	His	Trp	Ala	Pro	Pro	Phe	Cys	Asp	Lys	Phe	Gly	Phe	Gly
				680					685					690
Gly	Ser	Thr	Asp	Ser	Gly	Pro	Ile	Arg	Gln	Ala	Glu	Ala	Arg	Gln
				695					700					705
Glu	Ala	Ala	Glu	Ser	Asn	Arg	Glu	Arg	Gly	Gln	Gly	Gln	Glu	Pro
				710					715					720
Val	Gly	Ser	Gln	Glu	His	Ala	Ser	Thr	Ala	Ser	Leu	Thr	Leu	Ile
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<211> 483

<212> DNA

<213> Homo sapiens

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<221> unsure

<222> 30, 94, 143, 156, 163, 179, 193, 369, 371, 381, 390, 473

<223> unknown base

<400> 75

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 ttgagntttt tgntaaaaca tggacatgnt tcagtgtctgc tcntgagaga 200
 gtacgagggtt accacttttg gcaggcccca gccctgcagc aaggaggaag 250
 aggactcaaa agtttggcct ttcactgagc ctccacagca gtgggggaga 300
 agcaagggtt gggcccagtg tcccctttcc ccagtgcac ctcagccttg 350
 gcagccctga taactggtnt ntggctgcaa nttaatgctn tgatatggct 400
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 gagaccctgc caccattcc atntccatcc aag 483

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 76

gtctcagcac gtgttctggt ctcagg 27

<210> 77

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 77

catgagcatg tgcacggc 18

<210> 78

<211> 18

<212> DNA

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<220>

<223> Synthetic oligonucleotide probe

<400> 78

tacctgcacg atgggcac 18

<210> 79

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<400> 79
cactgggcac ctcccttc 18

<210> 80
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<400> 80
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<210> 81
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cttcgctggg aagagtttg 19

<210> 83
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<212> DNA
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<212> PRT
<213> Homo sapiens

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Thr Ser Met Pro Glu Ala Thr Ala Ala Glu Thr Thr Lys Pro Ser
35 40 45
Asn Ser Ala Leu Gln Pro Thr Ala Gly Leu Leu Val Val Leu Leu
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Ala Leu Leu His Leu Tyr His
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<213> Homo sapiens

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 ggtacaattt gtttggtttac actatgatac tttctaaata aactcttttt 2950
 ttttaa 2956

<210> 90

<211> 432

<212> PRT

<213> Homo sapiens

<400> 90

Met	Pro	Ala	Arg	Pro	Gly	Arg	Leu	Leu	Pro	Leu	Leu	Ala	Arg	Pro	1	5	10	15
Ala	Ala	Leu	Thr	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	His	Gly	Gly	20	25	30	
Gly	Gly	Arg	Trp	Gly	Ala	Arg	Ala	Gln	Glu	Ala	Ala	Ala	Ala	Ala	35	40	45	
Ala	Asp	Gly	Pro	Pro	Ala	Ala	Asp	Gly	Glu	Asp	Gly	Gln	Asp	Pro	50	55	60	
His	Ser	Lys	His	Leu	Tyr	Thr	Ala	Asp	Met	Phe	Thr	His	Gly	Ile	65	70	75	
Gln	Ser	Ala	Ala	His	Phe	Val	Met	Phe	Phe	Ala	Pro	Trp	Cys	Gly	80	85	90	
His	Cys	Gln	Arg	Leu	Gln	Pro	Thr	Trp	Asn	Asp	Leu	Gly	Asp	Lys	95	100	105	
Tyr	Asn	Ser	Met	Glu	Asp	Ala	Lys	Val	Tyr	Val	Ala	Lys	Val	Asp	110	115	120	
Cys	Thr	Ala	His	Ser	Asp	Val	Cys	Ser	Ala	Gln	Gly	Val	Arg	Gly	125	130	135	
Tyr	Pro	Thr	Leu	Lys	Leu	Phe	Lys	Pro	Gly	Gln	Glu	Ala	Val	Lys	140	145	150	
Tyr	Gln	Gly	Pro	Arg	Asp	Phe	Gln	Thr	Leu	Glu	Asn	Trp	Met	Leu	155	160	165	
Gln	Thr	Leu	Asn	Glu	Glu	Pro	Val	Thr	Pro	Glu	Pro	Glu	Val	Glu	170	175	180	

Pro	Pro	Ser	Ala	Pro	Glu	Leu	Lys	Gln	Gly	Leu	Tyr	Glu	Leu	Ser	185	190	195
Ala	Ser	Asn	Phe	Glu	Leu	His	Val	Ala	Gln	Gly	Asp	His	Phe	Ile	200	205	210
Lys	Phe	Phe	Ala	Pro	Trp	Cys	Gly	His	Cys	Lys	Ala	Leu	Ala	Pro	215	220	225
Thr	Trp	Glu	Gln	Leu	Ala	Leu	Gly	Leu	Glu	His	Ser	Glu	Thr	Val	230	235	240
Lys	Ile	Gly	Lys	Val	Asp	Cys	Thr	Gln	His	Tyr	Glu	Leu	Cys	Ser	245	250	255
Gly	Asn	Gln	Val	Arg	Gly	Tyr	Pro	Thr	Leu	Leu	Trp	Phe	Arg	Asp	260	265	270
Gly	Lys	Lys	Val	Asp	Gln	Tyr	Lys	Gly	Lys	Arg	Asp	Leu	Glu	Ser	275	280	285
Leu	Arg	Glu	Tyr	Val	Glu	Ser	Gln	Leu	Gln	Arg	Thr	Glu	Thr	Gly	290	295	300
Ala	Thr	Glu	Thr	Val	Thr	Pro	Ser	Glu	Ala	Pro	Val	Leu	Ala	Ala	305	310	315
Glu	Pro	Glu	Ala	Asp	Lys	Gly	Thr	Val	Leu	Ala	Leu	Thr	Glu	Asn	320	325	330
Asn	Phe	Asp	Asp	Thr	Ile	Ala	Glu	Gly	Ile	Thr	Phe	Ile	Lys	Phe	335	340	345
Tyr	Ala	Pro	Trp	Cys	Gly	His	Cys	Lys	Thr	Leu	Ala	Pro	Thr	Trp	350	355	360
Glu	Glu	Leu	Ser	Lys	Lys	Glu	Phe	Pro	Gly	Leu	Ala	Gly	Val	Lys	365	370	375
Ile	Ala	Glu	Val	Asp	Cys	Thr	Ala	Glu	Arg	Asn	Ile	Cys	Ser	Lys	380	385	390
Tyr	Ser	Val	Arg	Gly	Tyr	Pro	Thr	Leu	Leu	Leu	Phe	Arg	Gly	Gly	395	400	405
Lys	Lys	Val	Ser	Glu	His	Ser	Gly	Gly	Arg	Asp	Leu	Asp	Ser	Leu	410	415	420
His	Arg	Phe	Val	Leu	Ser	Gln	Ala	Lys	Asp	Glu	Leu				425	430	

<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 91
atgtttcttcg cgccctggtg 20

<210> 92
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
ccaagccaac acactctaca g 21

<210> 93
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
aagtggtcgc cttgtgcaac gtgc 24

<210> 94
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
ggtcaaaggg gatatatcgc cac 23

<210> 95
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
gcatggaaga tgccaaagtc tatgtggcta aagtggactg cacggcca 49

<210> 96
<211> 1016
<212> DNA
<213> Homo sapiens

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cttttctgag gaaccacagc aatgaatggc tttgcatcct tgcttogaag 50
aaaccaatth atcctcctgg tactatttct tttgcaaatt cagagtctgg 100
gtctggatat tgatagccgt cctaccgctg aagtctgtgc cacacacaca 150

atttcaccag gacccaaagg agatgatggg gaaaaaggag atccaggaga 200
agaggggaaag catggcaaag tgggacgcat ggggccgaaa ggaattaaag 250
gagaactggg tgatatggga gatcagggca atattggcaa gactggggccc 300
attgggaaga aggggtgacaa aggggaaaaa ggtttgcttg gaatacctgg 350
agaaaaaggc aaagcaggta ctgtctgtga ttgtggaaga taccggaaat 400
ttgttggaaca actggatatt agtattgctc ggctcaagac atctatgaag 450
tttgtcaaga atgtgatagc agggattagg gaaactgaag agaaattcta 500
ctacatcgtg caggaagaga agaactacag ggaatcccta acccactgca 550
ggattcgggg tggaatgcta gccatgcccaggatgaagc tgccaacaca 600
ctcatcgctg actatgttgc caagagtggc ttctttcggg tggttcattgg 650
cgtgaatgac cttgaaaggg agggacagta catgtccaca gacaacactc 700
cactgcagaa ctatagcaac tggaatgagg gggaaccag cgaccctat 750
ggatcatgagg actgtgtgga gatgctgagc tctggcagat ggaatgacac 800
agagtgccat cttaccatgt actttgtctg tgagttcatc aagaagaaaa 850
agtaacttcc ctcatcctac gtatttgcta ttttcctgtg accgtcatta 900
cagttattgt tatccatcct ttttttcctg attgtactac atttgatctg 950
agtcaacata gctagaaaat gctaaactga ggtatggagc ctccatcatc 1000
aaaaaaaaa aaaaaa 1016

<210> 97
<211> 277
<212> PRT
<213> Homo sapiens

<400> 97
Met Asn Gly Phe Ala Ser Leu Leu Arg Arg Asn Gln Phe Ile Leu
1 5 10 15
Leu Val Leu Phe Leu Leu Gln Ile Gln Ser Leu Gly Leu Asp Ile
20 25 30
Asp Ser Arg Pro Thr Ala Glu Val Cys Ala Thr His Thr Ile Ser
35 40 45
Pro Gly Pro Lys Gly Asp Asp Gly Glu Lys Gly Asp Pro Gly Glu
50 55 60
Glu Gly Lys His Gly Lys Val Gly Arg Met Gly Pro Lys Gly Ile
65 70 75
Lys Gly Glu Leu Gly Asp Met Gly Asp Gln Gly Asn Ile Gly Lys

	80	85	90
Thr Gly Pro Ile	Gly Lys Lys Gly Asp	Lys Gly Glu Lys Gly	Leu
	95	100	105
Leu Gly Ile Pro	Gly Glu Lys Gly Lys	Ala Gly Thr Val Cys	Asp
	110	115	120
Cys Gly Arg Tyr	Arg Lys Phe Val Gly	Gln Leu Asp Ile Ser	Ile
	125	130	135
Ala Arg Leu Lys	Thr Ser Met Lys Phe	Val Lys Asn Val Ile	Ala
	140	145	150
Gly Ile Arg Glu	Thr Glu Glu Lys Phe	Tyr Tyr Ile Val Gln	Glu
	155	160	165
Glu Lys Asn Tyr	Arg Glu Ser Leu Thr	His Cys Arg Ile Arg	Gly
	170	175	180
Gly Met Leu Ala	Met Pro Lys Asp Glu	Ala Ala Asn Thr Leu	Ile
	185	190	195
Ala Asp Tyr Val	Ala Lys Ser Gly Phe	Phe Arg Val Phe Ile	Gly
	200	205	210
Val Asn Asp Leu	Glu Arg Glu Gly Gln	Tyr Met Ser Thr Asp	Asn
	215	220	225
Thr Pro Leu Gln	Asn Tyr Ser Asn Trp	Asn Glu Gly Glu Pro	Ser
	230	235	240
Asp Pro Tyr Gly	His Glu Asp Cys Val	Glu Met Leu Ser Ser	Gly
	245	250	255
Arg Trp Asn Asp	Thr Glu Cys His Leu	Thr Met Tyr Phe Val	Cys
	260	265	270
Glu Phe Ile Lys	Lys Lys Lys		
	275		

<210> 98

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 98

cgctgactat gttgccaaga gtgg 24

<210> 99

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 99

gatgatggag gctccatacc tcag 24

<210> 100

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 100

gtgttcattg gcgtgaatga ccttgaaagg gagggacagt acatgttcac 50

<210> 101

<211> 2574

<212> DNA

<213> Homo sapiens

<400> 101

ggttctatcg attcgaattc ggccacactg gccggatcct ctagagatcc 50

ctcgacctcg acccacgcgt ccgctgctct ccgcccgtgt ggagtggtag 100

gggcctgggt gggaatgggc gtgtgccagc gcacgcgcgc tccctggaag 150

gagaagtctc agctagaacg agcggcccta ggttttcgga agggaggatc 200

agggatgttt gcgagcggct ggaaccagac ggtgccgata gaggaagcgg 250

gctccatggc tgccctcctg ctgctgcccc tgctgctgtt gctaccgctg 300

ctgctgctga agctacacct ctggccgcag ttgcgctggc ttccggcgga 350

cttggccttt gcggtgcgag ctctgtgctg caaaagggct cttcgagctc 400

gcgccctggc cgcggctgcc gccgaccggg aaggtcccga ggggggctgc 450

agcctggcct ggcgctcgc ggaactggcc cagcagcgcg ccgcgcacac 500

ctttctcatt cacggctcgc ggcgcttttag ctactcagag gcggagcgcg 550

agagtaacag ggctgcacgc gccttcctac gtgcgctagg ctgggactgg 600

ggaccgcacg gcggcgacag cggcgagggg agcgctggag aaggcgagcg 650

ggcagcgccg ggagccggag atgcagcggc cggaagcggc gcggagtttg 700

ccggagggga cggtgccgcc agaggtggag gagccgcgc ccctctgtca 750

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 catggcccaa cttgtttatt gcag 2574

<210> 102

<211> 730

<212> PRT

<213> Homo sapiens

<400> 102

Met	Gly	Val	Cys	Gln	Arg	Thr	Arg	Ala	Pro	Trp	Lys	Glu	Lys	Ser	1	5	10	15
Gln	Leu	Glu	Arg	Ala	Ala	Leu	Gly	Phe	Arg	Lys	Gly	Gly	Ser	Gly	20	25	30	
Met	Phe	Ala	Ser	Gly	Trp	Asn	Gln	Thr	Val	Pro	Ile	Glu	Glu	Ala	35	40	45	
Gly	Ser	Met	Ala	Ala	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu	50	55	60	
Pro	Leu	Leu	Leu	Leu	Lys	Leu	His	Leu	Trp	Pro	Gln	Leu	Arg	Trp	65	70	75	
Leu	Pro	Ala	Asp	Leu	Ala	Phe	Ala	Val	Arg	Ala	Leu	Cys	Cys	Lys	80	85	90	
Arg	Ala	Leu	Arg	Ala	Arg	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asp	Pro	95	100	105	
Glu	Gly	Pro	Glu	Gly	Gly	Cys	Ser	Leu	Ala	Trp	Arg	Leu	Ala	Glu	110	115	120	
Leu	Ala	Gln	Gln	Arg	Ala	Ala	His	Thr	Phe	Leu	Ile	His	Gly	Ser	125	130	135	
Arg	Arg	Phe	Ser	Tyr	Ser	Glu	Ala	Glu	Arg	Glu	Ser	Asn	Arg	Ala	140	145	150	
Ala	Arg	Ala	Phe	Leu	Arg	Ala	Leu	Gly	Trp	Asp	Trp	Gly	Pro	Asp	155	160	165	
Gly	Gly	Asp	Ser	Gly	Glu	Gly	Ser	Ala	Gly	Glu	Gly	Glu	Arg	Ala	170	175	180	
Ala	Pro	Gly	Ala	Gly	Asp	Ala	Ala	Ala	Gly	Ser	Gly	Ala	Glu	Phe	185	190	195	
Ala	Gly	Gly	Asp	Gly	Ala	Ala	Arg	Gly	Gly	Gly	Ala	Ala	Ala	Pro	200	205	210	

<210> 104
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 104
 ggagaatgtg gccacaac 18

<210> 105
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 105
 gccctggcac agtgactcca tagacg 26

<210> 106
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 106
 atccacttca gcggacac 18

<210> 107
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 107
 ccagtgccag gatacctctc ttccccccag agcataacag acacg 45

<210> 108
 <211> 2579
 <212> DNA
 <213> Homo sapiens

<400> 108
 cctgtgttaa gctgaggttt cccctagatc tcgtatatcc ccaacacata 50
 cctccacgca cacacatccc caagaacctc gagctcacac caacagacac 100
 acgcgcgcat acacactcgc tctcgcttgt ccatctccct cccgggggag 150
 ccggcgcgcg ctccacctt tgccgcacac tccggcgagc cgagcccgcg 200

gcgctccagg attctgcggc tcggaactcg gattgcagct ctgaaccccc 250
atggtgggtt tttaaacact tcttttcctt ctcttctctg ttttgattgc 300
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 ttgtttattc tagagagaat tcttactcaa atttttcgta ccaggagatt 2500
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 gtgagggttt tttttttctc atttaaaat 2579

<210> 109

<211> 555

<212> PRT

<213> Homo sapiens

<400> 109

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Leu	Leu	Ser	Leu	Pro	Ala	Gly	Ala	Asp	Val	Lys	Ala	Arg	Ser	Cys
				20					25					30
Gly	Glu	Val	Arg	Gln	Ala	Tyr	Gly	Ala	Lys	Gly	Phe	Ser	Leu	Ala
				35					40					45
Asp	Ile	Pro	Tyr	Gln	Glu	Ile	Ala	Gly	Glu	His	Leu	Arg	Ile	Cys
				50					55					60
Pro	Gln	Glu	Tyr	Thr	Cys	Cys	Thr	Thr	Glu	Met	Glu	Asp	Lys	Leu
				65					70					75

	365		370		375
Ala Ala Gly Thr	Ser Leu Asp Arg Leu	Val Thr Asp Ile Lys	Glu		
	380	385	390		
Lys Leu Lys Leu	Ser Lys Lys Val Trp	Ser Ala Leu Pro Tyr	Thr		
	395	400	405		
Ile Cys Lys Asp	Glu Ser Val Thr Ala	Gly Thr Ser Asn Glu	Glu		
	410	415	420		
Glu Cys Trp Asn	Gly His Ser Lys Ala	Arg Tyr Leu Pro Glu	Ile		
	425	430	435		
Met Asn Asp Gly	Leu Thr Asn Gln Ile	Asn Asn Pro Glu Val	Asp		
	440	445	450		
Val Asp Ile Thr	Arg Pro Asp Thr Phe	Ile Arg Gln Gln Ile	Met		
	455	460	465		
Ala Leu Arg Val	Met Thr Asn Lys Leu	Lys Asn Ala Tyr Asn	Gly		
	470	475	480		
Asn Asp Val Asn	Phe Gln Asp Thr Ser	Asp Glu Ser Ser Gly	Ser		
	485	490	495		
Gly Ser Gly Ser	Gly Cys Met Asp Asp	Val Cys Pro Thr Glu	Phe		
	500	505	510		
Glu Phe Val Thr	Thr Glu Ala Pro Ala	Val Asp Pro Asp Arg	Arg		
	515	520	525		
Glu Val Asp Ser	Ser Ala Ala Gln Arg	Gly His Ser Leu Leu	Ser		
	530	535	540		
Trp Ser Leu Thr	Cys Ile Val Leu Ala	Leu Gln Arg Leu Cys	Arg		
	545	550	555		

<210> 110

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 110

aagcgtgaca gcgggcacgt c 21

<210> 111

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 111

tgcacagtct ctgcagtgcc cagg 24

<210> 112

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

gaatgctgga acgggcacag caaagccaga tacttgcttg 40

<210> 113

<211> 4649

<212> DNA

<213> Homo sapiens

<400> 113

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cgccaactac gcaaagacca agcgggctcc gcgcggaccg gccgcggggc 150

tagggacccg gctttggcct tcaggctccc tagcagcggg gaaaaggaat 200

tgctgcccgg agttttctgcg gaggtggagg gagatcagga aacggcttct 250

tcctcacttc gccgcctggt gagtgtcggg gagattggca aacgcctagg 300

aaaggactgg ggaaaatagc cctgggaaaag tggagaaggt gatcaggagg 350

cgggtccact acggcagttt atctgtctga tcagagccag acgcgacgcg 400

tccacttcgc agttctttcc aggtgtgggg accgcaggac agacggccga 450

tcccgcgcc ctccgtacca gcactcccag gagagtcagc ctgcctcccc 500

aacgtcgagg gcgctctggc cacgaaaagt tcctgtccac tgtgattctc 550

aattccttgc ttggtttttt tctccagaga acttttgggt ggagatatta 600

acttttttct tttttttttt ccttgggtga agctgctcta gggagggggg 650

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cttccggagt cccatccatt aagccatcac ttctggaaga ttaaagttgt 750

cggacatggt gacagctgag aggagaggag gatttcttgc cagggtggaga 800

gtcttcaccg tctgttgggt gcattgtgtc gccgcagcg gcgcggggcg 850

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caccggactt caacattcta tcataagacc taccacaacc aactgtttac 1350
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Thr	Ile	Ser	Glu	Gly	Leu	Arg	Ser	Pro	Arg	Val	Asp	Ile	Leu	His
				410					415					420
Asn	Ile	Asp	Pro	Tyr	Thr	Pro	Arg	Gln	Lys	Met	Ala	Pro	Gly	Gln
				425					430					435
Gln	Ala	Met	Gly	Ser	Gly	Thr	Leu	Gln	Ser	Ser	Gln	Pro	Ser	Glu
				440					445					450
Cys	Ser	Thr	Gly	Asn	Cys	Leu	Gln	Glu	Ile	Leu	Ala	Thr	Ala	Thr
				455					460					465
Gly	Ser	Pro	Leu	Ser	Leu	Ser	Ala	Thr	Trp	Asp	Arg	Thr	Gly	Gly
				470					475					480
Thr	Met	Asn	Gly	Ser	Pro	Cys	Gln	Leu	Ala	Lys	Val	Tyr	Gly	Phe
				485					490					495
Ser	Thr	Ser	Gln	Pro	Thr	His	Met	Arg	Gly	Trp	Thr	Tyr	Leu	Thr
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Gly	Ile	Gln	Glu	Ser										
				515										

<210> 115
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 115
 cccaacccaa ctgtttacct ctgg 24

 <210> 116
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 116
 ctctctgagt gtacatctgt gtgg 24

 <210> 117
 <211> 53
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <220>
 <221> unsure
 <222> 33
 <223> unknown base

<400> 117
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 cgg 53

<210> 118
 <211> 2260
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 2009, 2026, 2033, 2055, 2074, 2078, 2086
 <223> unknown base

<400> 118
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 gggctcagga ggaggaagga ggacccgtgc gagaatgcct ctgccctgga 150
 gccttgcgct cccgctgctg ctctcctggg tggcaggtgg tttcggaac 200
 gcggccagtgc caaggcatca cgggttggtta gcatcggcac gtcagcctgg 250
 ggtctgtcac tatggaacta aactggcctg ctgctacggc tggagaagaa 300
 acagcaaggg agtctgtgaa gctacatgcg aacctggatg taagtttgg 350
 gagtgcgtgg gaccaaacia atgcagatgc tttccaggat acaccgggaa 400
 aacctgcagt caagatgtga atgagtgtgg aatgaaacc cggccatgcc 450
 aacacagatg tgtgaataca cacggaagct acaagtgtt ttgcctcagt 500
 ggccacatgc tcatgccaga tgctacgtgt gtgaactcta ggacatgtgc 550
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 gcctgtgtcc atcctcagga ctccgcctgg ccccaaattg aagagactgt 650
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 aagatgtgtg aacacatttg gaagctacta ctgcaaattg cacattgggt 750
 tcgaactgca atatatcagt ggacgatatg actgtataga tataaatgaa 800
 tgtactatgg atagccatac gtgcagccac catgccaatt gttcaatac 850
 ccaagggtcc ttcaagtgt aatgcaagca gggatataaa ggcaatggac 900
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 cctggtacca tcaagacag aatcaagaag ttgcttgctc aaaaaaacag 1000
 catgaaaaag aaggcaaaaa ttaaaaatgt taccacagaa cccaccagga 1050

ctcctacccc taaggtgaac ttgcagccct tcaactatga agagatagtt 1100
tccagaggcg ggaactctca tggaggtaaa aaagggaatg aagagaaatg 1150
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gtaataataa 2260

<210> 119

<211> 338

<212> PRT

<213> Homo sapiens

<400> 119

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Val	Ala	Gly	Gly	Phe	Gly	Asn	Ala	Ala	Ser	Ala	Arg	His	His	Gly	
				20					25					30	
Leu	Leu	Ala	Ser	Ala	Arg	Gln	Pro	Gly	Val	Cys	His	Tyr	Gly	Thr	
				35					40					45	
Lys	Leu	Ala	Cys	Cys	Tyr	Gly	Trp	Arg	Arg	Asn	Ser	Lys	Gly	Val	
				50					55					60	
Cys	Glu	Ala	Thr	Cys	Glu	Pro	Gly	Cys	Lys	Phe	Gly	Glu	Cys	Val	
				65					70					75	
Gly	Pro	Asn	Lys	Cys	Arg	Cys	Phe	Pro	Gly	Tyr	Thr	Gly	Lys	Thr	
				80					85					90	
Cys	Ser	Gln	Asp	Val	Asn	Glu	Cys	Gly	Met	Lys	Pro	Arg	Pro	Cys	
				95					100					105	
Gln	His	Arg	Cys	Val	Asn	Thr	His	Gly	Ser	Tyr	Lys	Cys	Phe	Cys	
				110					115					120	
Leu	Ser	Gly	His	Met	Leu	Met	Pro	Asp	Ala	Thr	Cys	Val	Asn	Ser	
				125					130					135	
Arg	Thr	Cys	Ala	Met	Ile	Asn	Cys	Gln	Tyr	Ser	Cys	Glu	Asp	Thr	
				140					145					150	
Glu	Glu	Gly	Pro	Gln	Cys	Leu	Cys	Pro	Ser	Ser	Gly	Leu	Arg	Leu	
				155					160					165	
Ala	Pro	Asn	Gly	Arg	Asp	Cys	Leu	Asp	Ile	Asp	Glu	Cys	Ala	Ser	
				170					175					180	
Gly	Lys	Val	Ile	Cys	Pro	Tyr	Asn	Arg	Arg	Cys	Val	Asn	Thr	Phe	
				185					190					195	
Gly	Ser	Tyr	Tyr	Cys	Lys	Cys	His	Ile	Gly	Phe	Glu	Leu	Gln	Tyr	
				200					205					210	
Ile	Ser	Gly	Arg	Tyr	Asp	Cys	Ile	Asp	Ile	Asn	Glu	Cys	Thr	Met	
				215					220					225	
Asp	Ser	His	Thr	Cys	Ser	His	His	Ala	Asn	Cys	Phe	Asn	Thr	Gln	
				230					235					240	
Gly	Ser	Phe	Lys	Cys	Lys	Cys	Lys	Gln	Gly	Tyr	Lys	Gly	Asn	Gly	
				245					250					255	
Leu	Arg	Cys	Ser	Ala	Ile	Pro	Glu	Asn	Ser	Val	Lys	Glu	Val	Leu	
				260					265					270	
Arg	Ala	Pro	Gly	Thr	Ile	Lys	Asp	Arg	Ile	Lys	Lys	Leu	Leu	Ala	
				275					280					285	
His	Lys	Asn	Ser	Met	Lys	Lys	Lys	Ala	Lys	Ile	Lys	Asn	Val	Thr	
				290					295					300	
Pro	Glu	Pro	Thr	Arg	Thr	Pro	Thr	Pro	Lys	Val	Asn	Leu	Gln	Pro	

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Phe Asn Tyr Glu	Glu Ile Val Ser Arg	Gly Gly Asn Ser His	Gly		
	320		325		330
Gly Lys Lys Gly	Asn Glu Glu Lys				
	335				

<210> 120
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 120
 cctcagtggc cacatgctca tg 22

<210> 121
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 121
 ggctgcacgt atggctatcc atag 24

<210> 122
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 122
 gataaactgt cagtacagct gtgaagacac agaagaagg ccacagtgcc 50

<210> 123
 <211> 1199
 <212> DNA
 <213> Homo sapiens

<400> 123
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 gtgcagctgc tgcgcttcct gagggctgac ggcgacctga cgctactatg 100
 ggccgagtgg cagggacgac gcccagaatg ggagctgact gatatggtgg 150
 tgtgggtgac tggagcctcg agtgggaattg gtgaggagct ggcttaccag 200
 ttgtctaaac taggagtttc tcttgtgctg tcagccagaa gagtgcattga 250
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aagatataact tgttttgccc cttgacctga ccgacactgg ttcccatgaa 350
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<210> 124

<211> 289

<212> PRT

<213> Homo sapiens

<400> 124

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Leu	Ala	Tyr	Gln	Leu	Ser	Lys	Leu	Gly	Val	Ser	Leu	Val	Leu	Ser
			20						25					30
Ala	Arg	Arg	Val	His	Glu	Leu	Glu	Arg	Val	Lys	Arg	Arg	Cys	Leu
			35						40					45
Glu	Asn	Gly	Asn	Leu	Lys	Glu	Lys	Asp	Ile	Leu	Val	Leu	Pro	Leu
			50						55					60
Asp	Leu	Thr	Asp	Thr	Gly	Ser	His	Glu	Ala	Ala	Thr	Lys	Ala	Val
			65						70					75
Leu	Gln	Glu	Phe	Gly	Arg	Ile	Asp	Ile	Leu	Val	Asn	Asn	Gly	Gly

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 126

ctgtgaatag catcctggg 19

<210> 127

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 127

cttttcaagc cactggaggg 20

<210> 128

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 128

ctgtagacat ccaagctggg atcc 24

<210> 129

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 129

aagagtctgc atccacacca ctc 23

<210> 130

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 130

acctgacgct actatgggcc gaggggcagg gacgacgccc agaattg 46

<210> 131

<211> 2365

<212> DNA

<213> Homo sapiens

<400> 131

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<210> 132
 <211> 571
 <212> PRT
 <213> Homo sapiens

<400> 132
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 Ala Trp Ile Leu Phe Phe Val Leu Tyr Asp Phe Cys Ile Val Cys
 20 25 30
 Ile Thr Thr Tyr Ala Ile Asn Val Ser Leu Met Trp Leu Ser Phe
 35 40 45
 Arg Lys Val Gln Glu Pro Gln Gly Lys Ala Lys Arg His Gly Asn
 50 55 60
 Thr Val Pro Gly Glu Trp Pro Trp Gln Ala Ser Val Arg Arg Gln
 65 70 75

Gly	Ala	His	Ile	Cys	Ser	Gly	Ser	Leu	Val	Ala	Asp	Thr	Trp	Val	
				80					85					90	
Leu	Thr	Ala	Ala	His	Cys	Phe	Glu	Lys	Ala	Ala	Ala	Thr	Glu	Leu	
				95					100					105	
Asn	Ser	Trp	Ser	Val	Val	Leu	Gly	Ser	Leu	Gln	Arg	Glu	Gly	Leu	
				110					115					120	
Ser	Pro	Gly	Ala	Glu	Glu	Val	Gly	Val	Ala	Ala	Leu	Gln	Leu	Pro	
				125					130					135	
Arg	Ala	Tyr	Asn	His	Tyr	Ser	Gln	Gly	Ser	Asp	Leu	Ala	Leu	Leu	
				140					145					150	
Gln	Leu	Ala	His	Pro	Thr	Thr	His	Thr	Pro	Leu	Cys	Leu	Pro	Gln	
				155					160					165	
Pro	Ala	His	Arg	Phe	Pro	Phe	Gly	Ala	Ser	Cys	Trp	Ala	Thr	Gly	
				170					175					180	
Trp	Asp	Gln	Asp	Thr	Ser	Asp	Ala	Pro	Gly	Thr	Leu	Arg	Asn	Leu	
				185					190					195	
Arg	Leu	Arg	Leu	Ile	Ser	Arg	Pro	Thr	Cys	Asn	Cys	Ile	Tyr	Asn	
				200					205					210	
Gln	Leu	His	Gln	Arg	His	Leu	Ser	Asn	Pro	Ala	Arg	Pro	Gly	Met	
				215					220					225	
Leu	Cys	Gly	Gly	Pro	Gln	Pro	Gly	Val	Gln	Gly	Pro	Cys	Gln	Gly	
				230					235					240	
Asp	Ser	Gly	Gly	Pro	Val	Leu	Cys	Leu	Glu	Pro	Asp	Gly	His	Trp	
				245					250					255	
Val	Gln	Ala	Gly	Ile	Ile	Ser	Phe	Ala	Ser	Ser	Cys	Ala	Gln	Glu	
				260					265					270	
Asp	Ala	Pro	Val	Leu	Leu	Thr	Asn	Thr	Ala	Ala	His	Ser	Ser	Trp	
				275					280					285	
Leu	Gln	Ala	Arg	Val	Gln	Gly	Ala	Ala	Phe	Leu	Ala	Gln	Ser	Pro	
				290					295					300	
Glu	Thr	Pro	Glu	Met	Ser	Asp	Glu	Asp	Ser	Cys	Val	Ala	Cys	Gly	
				305					310					315	
Ser	Leu	Arg	Thr	Ala	Gly	Pro	Gln	Ala	Gly	Ala	Pro	Ser	Pro	Trp	
				320					325					330	
Pro	Trp	Glu	Ala	Arg	Leu	Met	His	Gln	Gly	Gln	Leu	Ala	Cys	Gly	
				335					340					345	
Gly	Ala	Leu	Val	Ser	Glu	Glu	Ala	Val	Leu	Thr	Ala	Ala	His	Cys	
				350					355					360	
Phe	Ile	Gly	Arg	Gln	Ala	Pro	Glu	Glu	Trp	Ser	Val	Gly	Leu	Gly	

	365	370	375
Thr Arg Pro Glu	Glu Trp Gly Leu Lys	Gln Leu Ile Leu His	Gly
	380	385	390
Ala Tyr Thr His	Pro Glu Gly Gly Tyr	Asp Met Ala Leu Leu	Leu
	395	400	405
Leu Ala Gln Pro	Val Thr Leu Gly Ala	Ser Leu Arg Pro Leu	Cys
	410	415	420
Leu Pro Tyr Pro	Asp His His Leu Pro	Asp Gly Glu Arg Gly	Trp
	425	430	435
Val Leu Gly Arg	Ala Arg Pro Gly Ala	Gly Ile Ser Ser Leu	Gln
	440	445	450
Thr Val Pro Val	Thr Leu Leu Gly Pro	Arg Ala Cys Ser Arg	Leu
	455	460	465
His Ala Ala Pro	Gly Gly Asp Gly Ser	Pro Ile Leu Pro Gly	Met
	470	475	480
Val Cys Thr Ser	Ala Val Gly Glu Leu	Pro Ser Cys Glu Gly	Leu
	485	490	495
Ser Gly Ala Pro	Leu Val His Glu Val	Arg Gly Thr Trp Phe	Leu
	500	505	510
Ala Gly Leu His	Ser Phe Gly Asp Ala	Cys Gln Gly Pro Ala	Arg
	515	520	525
Pro Ala Val Phe	Thr Ala Leu Pro Ala	Tyr Glu Asp Trp Val	Ser
	530	535	540
Ser Leu Asp Trp	Gln Val Tyr Phe Ala	Glu Glu Pro Glu Pro	Glu
	545	550	555
Ala Glu Pro Gly	Ser Cys Leu Ala Asn	Ile Ser Gln Pro Thr	Ser
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Cys			

<210> 133
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 133
 cctgtgctgt gcctcgagcc tgac 24

<210> 134
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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 134

gtgggcagca gttagcaccg cctc 24

<210> 135

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 135

ggctggcatc atcagctttg catcaagctg tgcccaggag gacgc 45

<210> 136

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 136

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<210> 137

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> unsure

<222> 233

<223> unknown amino acid

<400> 137

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Pro Leu Lys His Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile
 305 310 315

Ala

<210> 138
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<220>
 <223> Synthetic oligonucleotide probe

<400> 138
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<210> 139
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<220>
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<400> 139
 gctgtctgtc tgtctcattg 20

<210> 140
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<220>
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<400> 140
 ggacacagta tactgaccac 20

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<220>
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 tgcgaaccag gcagctgtaa gtgc 24

<210> 142
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<220>
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<400> 142
tggaagaaga ggggtggtgat gtgg 24

<210> 143
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 143
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<210> 144
<211> 2336
<212> DNA
<213> Homo sapiens

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<221> unsure
<222> 1620, 1673
<223> unknown base

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gcagctacta ttgaataaat acctatcctg gatttt 2336

<210> 145

<211> 211

<212> PRT

<213> Homo sapiens

<400> 145

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Ser Leu Ile Gly Ala Leu Ile Pro Glu Pro Glu Val Lys Ile Glu
20 25 30

Val Leu Gln Lys Pro Phe Ile Cys His Arg Lys Thr Lys Gly Gly
35 40 45

Asp Leu Met Leu Val His Tyr Glu Gly Tyr Leu Glu Lys Asp Gly
50 55 60

Ser Leu Phe His Ser Thr His Lys His Asn Asn Gly Gln Pro Ile
65 70 75

Trp Phe Thr Leu Gly Ile Leu Glu Ala Leu Lys Gly Trp Asp Gln
80 85 90

Gly Leu Lys Gly Met Cys Val Gly Glu Lys Arg Lys Leu Ile Ile
95 100 105

Pro Pro Ala Leu Gly Tyr Gly Lys Glu Gly Lys Gly Lys Ile Pro
110 115 120

Pro Glu Ser Thr Leu Ile Phe Asn Ile Asp Leu Leu Glu Ile Arg
125 130 135

Asn Gly Pro Arg Ser His Glu Ser Phe Gln Glu Met Asp Leu Asn
140 145 150

Asp Asp Trp Lys Leu Ser Lys Asp Glu Val Lys Ala Tyr Leu Lys
155 160 165

Lys Glu Phe Glu Lys His Gly Ala Val Val Asn Glu Ser His His
170 175 180

Asp Ala Leu Val Glu Asp Ile Phe Asp Lys Glu Asp Glu Asp Lys
185 190 195

Asp Gly Phe Ile Ser Ala Arg Glu Phe Thr Tyr Lys His Asp Glu
200 205 210

Leu

<210> 146

<211> 26

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 146
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<210> 147
<211> 25
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 147
gcccagagca ggaggaatga tgagc 25

<210> 148
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 148
gtggaacgcg gtcttgactc tgttcgtcac ttcttttgatt ggggctttg 49

<210> 149
<211> 2196
<212> DNA
<213> Homo sapiens

<400> 149
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<210> 150

<211> 215

<212> PRT

<213> Homo sapiens

<400> 150

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Glu	Val	Thr	Val	Pro	Ala	Thr	Leu	Asn	Val	Leu	Asn	Gly	Ser	Asp	35	40	45	
Ala	Arg	Leu	Pro	Cys	Thr	Phe	Asn	Ser	Cys	Tyr	Thr	Val	Asn	His	50	55	60	
Lys	Gln	Phe	Ser	Leu	Asn	Trp	Thr	Tyr	Gln	Glu	Cys	Asn	Asn	Cys	65	70	75	
Ser	Glu	Glu	Met	Phe	Leu	Gln	Phe	Arg	Met	Lys	Ile	Ile	Asn	Leu	80	85	90	
Lys	Leu	Glu	Arg	Phe	Gln	Asp	Arg	Val	Glu	Phe	Ser	Gly	Asn	Pro	95	100	105	
Ser	Lys	Tyr	Asp	Val	Ser	Val	Met	Leu	Arg	Asn	Val	Gln	Pro	Glu	110	115	120	
Asp	Glu	Gly	Ile	Tyr	Asn	Cys	Tyr	Ile	Met	Asn	Pro	Pro	Asp	Arg	125	130	135	
His	Arg	Gly	His	Gly	Lys	Ile	His	Leu	Gln	Val	Leu	Met	Glu	Glu	140	145	150	
Pro	Pro	Glu	Arg	Asp	Ser	Thr	Val	Ala	Val	Ile	Val	Gly	Ala	Ser	155	160	165	
Val	Gly	Gly	Phe	Leu	Ala	Val	Val	Ile	Leu	Val	Leu	Met	Val	Val	170	175	180	
Lys	Cys	Val	Arg	Arg	Lys	Lys	Glu	Gln	Lys	Leu	Ser	Thr	Asp	Asp	185	190	195	
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Asp	Asp	Gly	Ala	Lys											215			

<210> 151

<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 103, 233
<223> unknown base

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<210> 152
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 56, 123
<223> unknown base

<400> 152
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<210> 153
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<220>
<223> Synthetic oligonucleotide probe

<400> 153
acggagcatg gaggtccaca gtac 24

<210> 154
<211> 23
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 154
gcacgtttct cagcatcacc gac 23

<210> 155
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<212> DNA
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<223> Synthetic oligonucleotide probe

<400> 155
cgctgcct gcacctcaa ctctgtac acagtgaacc acaaacagtt 50

<210> 156
<211> 2680
<212> DNA
<213> Homo sapiens

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<210> 157

<211> 412

<212> PRT

<213> Artificial

<400> 157

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				20					25					30
Ala	Leu	Pro	Ala	Gly	Arg	His	Pro	Pro	Val	Val	Leu	Val	Pro	Gly
				35					40					45
Asp	Leu	Gly	Asn	Gln	Leu	Glu	Ala	Lys	Leu	Asp	Lys	Pro	Thr	Val
				50					55					60
Val	His	Tyr	Leu	Cys	Ser	Lys	Lys	Thr	Glu	Ser	Tyr	Phe	Thr	Ile
				65					70					75
Trp	Leu	Asn	Leu	Glu	Leu	Leu	Leu	Pro	Val	Ile	Ile	Asp	Cys	Trp
				80					85					90
Ile	Asp	Asn	Ile	Arg	Leu	Val	Tyr	Asn	Lys	Thr	Ser	Arg	Ala	Thr
				95					100					105
Gln	Phe	Pro	Asp	Gly	Val	Asp	Val	Arg	Val	Pro	Gly	Phe	Gly	Lys

110										115					120				
Thr	Phe	Ser	Leu	Glu	Phe	Leu	Asp	Pro	Ser	Lys	Ser	Ser	Val	Gly					
				125					130					135					
Ser	Tyr	Phe	His	Thr	Met	Val	Glu	Ser	Leu	Val	Gly	Trp	Gly	Tyr					
				140					145					150					
Thr	Arg	Gly	Glu	Asp	Val	Arg	Gly	Ala	Pro	Tyr	Asp	Trp	Arg	Arg					
				155					160					165					
Ala	Pro	Asn	Glu	Asn	Gly	Pro	Tyr	Phe	Leu	Ala	Leu	Arg	Glu	Met					
				170					175					180					
Ile	Glu	Glu	Met	Tyr	Gln	Leu	Tyr	Gly	Gly	Pro	Val	Val	Leu	Val					
				185					190					195					
Ala	His	Ser	Met	Gly	Asn	Met	Tyr	Thr	Leu	Tyr	Phe	Leu	Gln	Arg					
				200					205					210					
Gln	Pro	Gln	Ala	Trp	Lys	Asp	Lys	Tyr	Ile	Arg	Ala	Phe	Val	Ser					
				215					220					225					
Leu	Gly	Ala	Pro	Trp	Gly	Gly	Val	Ala	Lys	Thr	Leu	Arg	Val	Leu					
				230					235					240					
Ala	Ser	Gly	Asp	Asn	Asn	Arg	Ile	Pro	Val	Ile	Gly	Pro	Leu	Lys					
				245					250					255					
Ile	Arg	Glu	Gln	Gln	Arg	Ser	Ala	Val	Ser	Thr	Ser	Trp	Leu	Leu					
				260					265					270					
Pro	Tyr	Asn	Tyr	Thr	Trp	Ser	Pro	Glu	Lys	Val	Phe	Val	Gln	Thr					
				275					280					285					
Pro	Thr	Ile	Asn	Tyr	Thr	Leu	Arg	Asp	Tyr	Arg	Lys	Phe	Phe	Gln					
				290					295					300					
Asp	Ile	Gly	Phe	Glu	Asp	Gly	Trp	Leu	Met	Arg	Gln	Asp	Thr	Glu					
				305					310					315					
Gly	Leu	Val	Glu	Ala	Thr	Met	Pro	Pro	Gly	Val	Gln	Leu	His	Cys					
				320					325					330					
Leu	Tyr	Gly	Thr	Gly	Val	Pro	Thr	Pro	Asp	Ser	Phe	Tyr	Tyr	Glu					
				335					340					345					
Ser	Phe	Pro	Asp	Arg	Asp	Pro	Lys	Ile	Cys	Phe	Gly	Asp	Gly	Asp					
				350					355					360					
Gly	Thr	Val	Asn	Leu	Lys	Ser	Ala	Leu	Gln	Cys	Gln	Ala	Trp	Gln					
				365					370					375					
Ser	Arg	Gln	Glu	His	Gln	Val	Leu	Leu	Gln	Glu	Leu	Pro	Gly	Ser					
				380					385					390					
Glu	His	Ile	Glu	Met	Leu	Ala	Asn	Ala	Thr	Thr	Leu	Ala	Tyr	Leu					
				395					400					405					

Lys Arg Val Leu Leu Gly Pro
410

<210> 158

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 158

ctggggctac acacggggtg agg 23

<210> 159

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 159

ggtgccgctg cagaaagtag agcg 24

<210> 160

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 160

gccccaaatg aaaacgggcc ctacttcctg gccctccgcg agatg 45

<210> 161

<211> 1512

<212> DNA

<213> Homo sapiens

<400> 161

cgacgcgtg ggcggacgcg tggggcggcg gcagcggcgg cgacggcgac 50

atggagagcg gggcctacgg cgcggccaaag gcgggcggct ccttcgacct 100

gcggcgcttc ctgacgcagc cgcaggtggt ggcgcgcgcc gtgtgcttgg 150

tcttcgcctt gatcgtgttc tcttgcattc atggtgaggg ctacagcaat 200

gccacgagt ctaagcagat gtactgcgtg ttcaaccgca acgaggatgc 250

ctgccgctat ggcagtgcc tgggggtgct ggccttctctg gcctcggcct 300

tcttcttgggt ggtcgacgcg tatttcccc agatcagcaa cgccactgac 350

cgcaagtacc tggtcattgg tgacctgctc ttctcagctc tctggacctt 400

cctgtggttt gttggtttct gcttcctcac caaccagtgg gcagtcacca 450
acccgaagga cgtgctggtg ggggccgact ctgtgagggc agccatcacc 500
ttcagcttct tttccatctt ctctgggggt gtgctggcct ccctggccta 550
ccagcgctac aaggctggcg tggacgactt catccagaat tacgttgacc 600
ccactccgga cccaacact gcctacgcct cctaccaggg tgcatctgtg 650
gacaactacc aacagccacc cttcaccag aacgcggaga ccaccgaggg 700
ctaccagccg cccctgtgt actgagtggc ggtagcgtg ggaaggggga 750
cagagagggc cctccctctt gccctggact ttcccatcag cctcctggaa 800
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cctgtgcccga gagggttca gtcagccgct cactcctcca gggcactttt 950
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gtgccccatg gctcccagac tctgtctgtg ccgagtgtat tataaaatcg 1450
tgggggagat gcccggcctg ggatgctgtt tggagacgga ataatgttt 1500
tctcattcaa ag 1512

<210> 162

<211> 224

<212> PRT

<213> Homo sapiens

<400> 162

Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe
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Asp	Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala
				20					25					30

Val	Cys	Leu	Val	Phe	Ala	Leu	Ile	Val	Phe	Ser	Cys	Ile	Tyr	Gly	35	40	45
Glu	Gly	Tyr	Ser	Asn	Ala	His	Glu	Ser	Lys	Gln	Met	Tyr	Cys	Val	50	55	60
Phe	Asn	Arg	Asn	Glu	Asp	Ala	Cys	Arg	Tyr	Gly	Ser	Ala	Ile	Gly	65	70	75
Val	Leu	Ala	Phe	Leu	Ala	Ser	Ala	Phe	Phe	Leu	Val	Val	Asp	Ala	80	85	90
Tyr	Phe	Pro	Gln	Ile	Ser	Asn	Ala	Thr	Asp	Arg	Lys	Tyr	Leu	Val	95	100	105
Ile	Gly	Asp	Leu	Leu	Phe	Ser	Ala	Leu	Trp	Thr	Phe	Leu	Trp	Phe	110	115	120
Val	Gly	Phe	Cys	Phe	Leu	Thr	Asn	Gln	Trp	Ala	Val	Thr	Asn	Pro	125	130	135
Lys	Asp	Val	Leu	Val	Gly	Ala	Asp	Ser	Val	Arg	Ala	Ala	Ile	Thr	140	145	150
Phe	Ser	Phe	Phe	Ser	Ile	Phe	Ser	Trp	Gly	Val	Leu	Ala	Ser	Leu	155	160	165
Ala	Tyr	Gln	Arg	Tyr	Lys	Ala	Gly	Val	Asp	Asp	Phe	Ile	Gln	Asn	170	175	180
Tyr	Val	Asp	Pro	Thr	Pro	Asp	Pro	Asn	Thr	Ala	Tyr	Ala	Ser	Tyr	185	190	195
Pro	Gly	Ala	Ser	Val	Asp	Asn	Tyr	Gln	Gln	Pro	Pro	Phe	Thr	Gln	200	205	210
Asn	Ala	Glu	Thr	Thr	Glu	Gly	Tyr	Gln	Pro	Pro	Pro	Val	Tyr		215	220	

<210> 163

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 163

tggtcttcgc cttgatcgtg ttct 24

<210> 164

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 164
gtgtactgag cggcggtag 20

<210> 165
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 165
ctgaaggtga tggctgccct cac 23

<210> 166
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 166
ccaggaggct catgggaaag tcc 23

<210> 167
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 167
ccacgagtct aagcagatgt actgcgtgtt caaccgcaac gaggatgcct 50

<210> 168
<211> 3143
<212> DNA
<213> Homo sapiens

<400> 168
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agggtgatca gtgagcagaa ggatgccgt ggccgaggcc cccaggtgg 100
ctggcgggca gggggacgga ggtgatggcg aggaagcgga gccagagggg 150
atgttcaagg cctgtgagga ctccaagaga aaagcccggg gctacctccg 200
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gggtgctact ctggtatttc ctagggtaca aggcggaggt gatggtcagc 300
caggtgtact caggcagtct gcgtgtactc aatcgccact tctccagga 350
tcttaccgcg cggaatcta gtgccttccg cagtgaacc gccaaagccc 400

agaagatgct caaggagctc atcaccagca cccgcctggg aacttactac 450
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ctggttcatt ctccaaatcc ccgagcaccg ccggctgatg ctgagccccg 550
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 aagggtggga agtctgact ccaggtgcct tgccccaccc ctgcctgcca 3050
 cctgggccct cacagcccag accctcactg ggaggtgagc tcagctgccc 3100
 tttggaataa agctgcctga tcaaaaaaaaa aaaaaaaaaa aaa 3143

<210> 169
 <211> 802
 <212> PRT
 <213> Homo sapiens
 <400> 169

Met	Pro	Val	Ala	Glu	Ala	Pro	Gln	Val	Ala	Gly	Gly	Gln	Gly	Asp	
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Gly	Gly	Asp	Gly	Glu	Glu	Ala	Glu	Pro	Glu	Gly	Met	Phe	Lys	Ala	
				20					25					30	
Cys	Glu	Asp	Ser	Lys	Arg	Lys	Ala	Arg	Gly	Tyr	Leu	Arg	Leu	Val	
			.	35					40					45	
Pro	Leu	Phe	Val	Leu	Leu	Ala	Leu	Leu	Val	Leu	Ala	Ser	Ala	Gly	
				50					55					60	
Val	Leu	Leu	Trp	Tyr	Phe	Leu	Gly	Tyr	Lys	Ala	Glu	Val	Met	Val	
				65					70					75	
Ser	Gln	Val	Tyr	Ser	Gly	Ser	Leu	Arg	Val	Leu	Asn	Arg	His	Phe	
				80					85					90	
Ser	Gln	Asp	Leu	Thr	Arg	Arg	Glu	Ser	Ser	Ala	Phe	Arg	Ser	Glu	
				95					100					105	
Thr	Ala	Lys	Ala	Gln	Lys	Met	Leu	Lys	Glu	Leu	Ile	Thr	Ser	Thr	
				110					115					120	
Arg	Leu	Gly	Thr	Tyr	Tyr	Asn	Ser	Ser	Ser	Val	Tyr	Ser	Phe	Gly	
				125					130					135	
Glu	Gly	Pro	Leu	Thr	Cys	Phe	Phe	Trp	Phe	Ile	Leu	Gln	Ile	Pro	
				140					145					150	
Glu	His	Arg	Arg	Leu	Met	Leu	Ser	Pro	Glu	Val	Val	Gln	Ala	Leu	
				155					160					165	
Leu	Val	Glu	Glu	Leu	Leu	Ser	Thr	Val	Asn	Ser	Ser	Ala	Ala	Val	
				170					175					180	
Pro	Tyr	Arg	Ala	Glu	Tyr	Glu	Val	Asp	Pro	Glu	Gly	Leu	Val	Ile	
				185					190					195	
Leu	Glu	Ala	Ser	Val	Lys	Asp	Ile	Ala	Ala	Leu	Asn	Ser	Thr	Leu	
				200					205					210	
Gly	Cys	Tyr	Arg	Tyr	Ser	Tyr	Val	Gly	Gln	Gly	Gln	Val	Leu	Arg	
				215					220					225	
Leu	Lys	Gly	Pro	Asp	His	Leu	Ala	Ser	Ser	Cys	Leu	Trp	His	Leu	
				230					235					240	
Gln	Gly	Pro	Lys	Asp	Leu	Met	Leu	Lys	Leu	Arg	Leu	Glu	Trp	Thr	
				245					250					255	
Leu	Ala	Glu	Cys	Arg	Asp	Arg	Leu	Ala	Met	Tyr	Asp	Val	Ala	Gly	
				260					265					270	
Pro	Leu	Glu	Lys	Arg	Leu	Ile	Thr	Ser	Val	Tyr	Gly	Cys	Ser	Arg	
				275					280					285	
Gln	Glu	Pro	Val	Val	Glu	Val	Leu	Ala	Ser	Gly	Ala	Ile	Met	Ala	

290										295					300				
Val	Val	Trp	Lys	Lys	Gly	Leu	His	Ser	Tyr	Tyr	Asp	Pro	Phe	Val					
				305					310					315					
Leu	Ser	Val	Gln	Pro	Val	Val	Phe	Gln	Ala	Cys	Glu	Val	Asn	Leu					
				320					325					330					
Thr	Leu	Asp	Asn	Arg	Leu	Asp	Ser	Gln	Gly	Val	Leu	Ser	Thr	Pro					
				335					340					345					
Tyr	Phe	Pro	Ser	Tyr	Tyr	Ser	Pro	Gln	Thr	His	Cys	Ser	Trp	His					
				350					355					360					
Leu	Thr	Val	Pro	Ser	Leu	Asp	Tyr	Gly	Leu	Ala	Leu	Trp	Phe	Asp					
				365					370					375					
Ala	Tyr	Ala	Leu	Arg	Arg	Gln	Lys	Tyr	Asp	Leu	Pro	Cys	Thr	Gln					
				380					385					390					
Gly	Gln	Trp	Thr	Ile	Gln	Asn	Arg	Arg	Leu	Cys	Gly	Leu	Arg	Ile					
				395					400					405					
Leu	Gln	Pro	Tyr	Ala	Glu	Arg	Ile	Pro	Val	Val	Ala	Thr	Ala	Gly					
				410					415					420					
Ile	Thr	Ile	Asn	Phe	Thr	Ser	Gln	Ile	Ser	Leu	Thr	Gly	Pro	Gly					
				425					430					435					
Val	Arg	Val	His	Tyr	Gly	Leu	Tyr	Asn	Gln	Ser	Asp	Pro	Cys	Pro					
				440					445					450					
Gly	Glu	Phe	Leu	Cys	Ser	Val	Asn	Gly	Leu	Cys	Val	Pro	Ala	Cys					
				455					460					465					
Asp	Gly	Val	Lys	Asp	Cys	Pro	Asn	Gly	Leu	Asp	Glu	Arg	Asn	Cys					
				470					475					480					
Val	Cys	Arg	Ala	Thr	Phe	Gln	Cys	Lys	Glu	Asp	Ser	Thr	Cys	Ile					
				485					490					495					
Ser	Leu	Pro	Lys	Val	Cys	Asp	Gly	Gln	Pro	Asp	Cys	Leu	Asn	Gly					
				500					505					510					
Ser	Asp	Glu	Glu	Gln	Cys	Gln	Glu	Gly	Val	Pro	Cys	Gly	Thr	Phe					
				515					520					525					
Thr	Phe	Gln	Cys	Glu	Asp	Arg	Ser	Cys	Val	Lys	Lys	Pro	Asn	Pro					
				530					535					540					
Gln	Cys	Asp	Gly	Arg	Pro	Asp	Cys	Arg	Asp	Gly	Ser	Asp	Glu	Glu					
				545					550					555					
His	Cys	Asp	Cys	Gly	Leu	Gln	Gly	Pro	Ser	Ser	Arg	Ile	Val	Gly					
				560					565					570					
Gly	Ala	Val	Ser	Ser	Glu	Gly	Glu	Trp	Pro	Trp	Gln	Ala	Ser	Leu					
				575					580					585					

Gln	Val	Arg	Gly	Arg	His	Ile	Cys	Gly	Gly	Ala	Leu	Ile	Ala	Asp	
				590					595					600	
Arg	Trp	Val	Ile	Thr	Ala	Ala	His	Cys	Phe	Gln	Glu	Asp	Ser	Met	
				605					610					615	
Ala	Ser	Thr	Val	Leu	Trp	Thr	Val	Phe	Leu	Gly	Lys	Val	Trp	Gln	
				620					625					630	
Asn	Ser	Arg	Trp	Pro	Gly	Glu	Val	Ser	Phe	Lys	Val	Ser	Arg	Leu	
				635					640					645	
Leu	Leu	His	Pro	Tyr	His	Glu	Glu	Asp	Ser	His	Asp	Tyr	Asp	Val	
				650					655					660	
Ala	Leu	Leu	Gln	Leu	Asp	His	Pro	Val	Val	Arg	Ser	Ala	Ala	Val	
				665					670					675	
Arg	Pro	Val	Cys	Leu	Pro	Ala	Arg	Ser	His	Phe	Phe	Glu	Pro	Gly	
				680					685					690	
Leu	His	Cys	Trp	Ile	Thr	Gly	Trp	Gly	Ala	Leu	Arg	Glu	Gly	Gly	
				695					700					705	
Pro	Ile	Ser	Asn	Ala	Leu	Gln	Lys	Val	Asp	Val	Gln	Leu	Ile	Pro	
				710					715					720	
Gln	Asp	Leu	Cys	Ser	Glu	Ala	Tyr	Arg	Tyr	Gln	Val	Thr	Pro	Arg	
				725					730					735	
Met	Leu	Cys	Ala	Gly	Tyr	Arg	Lys	Gly	Lys	Lys	Asp	Ala	Cys	Gln	
				740					745					750	
Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Lys	Ala	Leu	Ser	Gly	Arg	
				755					760					765	
Trp	Phe	Leu	Ala	Gly	Leu	Val	Ser	Trp	Gly	Leu	Gly	Cys	Gly	Arg	
				770					775					780	
Pro	Asn	Tyr	Phe	Gly	Val	Tyr	Thr	Arg	Ile	Thr	Gly	Val	Ile	Ser	
				785					790					795	
Trp	Ile	Gln	Gln	Val	Val	Thr									
				800											

<210> 170

<211> 1327

<212> DNA

<213> Homo sapiens

<400> 170

gcacccaggg ccagtggacg atccagaaca ggaggctgtg tggcttgccg 50

atcctgcagc cctacgccga gaggatcccc gtggtggcca cggccgggat 100

caccatcaac ttcacctccc agatctccct caccgggccc ggtgtgcggg 150

tgcactatgg cttgtacaac cagtcggacc cctgccctgg agagttcctc 200

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 172
 taatccagca gtgcaggccg gg 22

 <210> 173
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 173
 atggcctcca cggtgctgtg gaccgtgttc ctgggcaagg tgtggcagaa 50

 <210> 174
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 174
 tgcctatgca ctgaggaggc agaag 25

 <210> 175
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 175
 aggcagggac acagagtcca ttcac 25

 <210> 176
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 176
 agtatgattt gccgtgcacc cagggccagt ggacgatcca gaacaggagg 50

 <210> 177
 <211> 1510
 <212> DNA
 <213> Homo sapiens

<400> 177

ggacgagggc agatctcggt ctggggcaag ccggtgacac tcgctccctg 50
ccaccgcccg ggctccgtgc cgccaagttt tcattttcca ccttctctgc 100
ctccagtccc ccagcccctg gccgagagaa gggctcttacc ggccgggatt 150
gctggaaaaca ccaagaggtg gtttttgttt tttaaaactt ctgtttcttg 200
ggaggggggtg tggcggggca ggatgagcaa ctccgttcct ctgctctgtt 250
tctggagcct ctgctattgc tttgctgctg ggagccccgt accttttggg 300
ccagagggac ggctggaaga taagctccac aaacccaaag ctacacagac 350
tgaggtcaaa ccatctgtga ggtttaacct ccgcacctcc aaggaccag 400
agcatgaagg atgctacctc tccgtcggcc acagccagcc cttagaagac 450
tgcagtttca acatgacagc taaaaccttt ttcattcttc acggatggac 500
gatgagcggg atctttgaaa actggctgca caaactcgtg tcagccctgc 550
acacaagaga gaaagacgcc aatgtagttg tggttgactg gctccccctg 600
gcccaccagc ttacacgga tgcggtcaat aataccaggg tggtgggaca 650
cagcattgcc aggatgctcg actggctgca ggagaaggac gatttttctc 700
tcgggaatgt ccacttgatc ggctacagcc tcggagcgca cgtggccggg 750
tatgcaggca acttcgtgaa aggaacggtg ggccgaatca caggtttgga 800
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agaagtggc agcacaatcc aatcaaactg ttgcaaacta gattacactg 1400
tgcatgtcct aggaaagga atctttacaa aataaacagt gtggaccct 1450

aataaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500

aaaaaaaaaa 1510

<210> 178

<211> 354

<212> PRT

<213> Homo sapiens

<400> 178

Met	Ser	Asn	Ser	Val	Pro	Leu	Leu	Cys	Phe	Trp	Ser	Leu	Cys	Tyr
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Cys	Phe	Ala	Ala	Gly	Ser	Pro	Val	Pro	Phe	Gly	Pro	Glu	Gly	Arg
				20					25					30

Leu	Glu	Asp	Lys	Leu	His	Lys	Pro	Lys	Ala	Thr	Gln	Thr	Glu	Val
				35					40					45

Lys	Pro	Ser	Val	Arg	Phe	Asn	Leu	Arg	Thr	Ser	Lys	Asp	Pro	Glu
				50					55					60

His	Glu	Gly	Cys	Tyr	Leu	Ser	Val	Gly	His	Ser	Gln	Pro	Leu	Glu
				65					70					75

Asp	Cys	Ser	Phe	Asn	Met	Thr	Ala	Lys	Thr	Phe	Phe	Ile	Ile	His
				80					85					90

Gly	Trp	Thr	Met	Ser	Gly	Ile	Phe	Glu	Asn	Trp	Leu	His	Lys	Leu
				95					100					105

Val	Ser	Ala	Leu	His	Thr	Arg	Glu	Lys	Asp	Ala	Asn	Val	Val	Val
				110					115					120

Val	Asp	Trp	Leu	Pro	Leu	Ala	His	Gln	Leu	Tyr	Thr	Asp	Ala	Val
				125					130					135

Asn	Asn	Thr	Arg	Val	Val	Gly	His	Ser	Ile	Ala	Arg	Met	Leu	Asp
				140					145					150

Trp	Leu	Gln	Glu	Lys	Asp	Asp	Phe	Ser	Leu	Gly	Asn	Val	His	Leu
				155					160					165

Ile	Gly	Tyr	Ser	Leu	Gly	Ala	His	Val	Ala	Gly	Tyr	Ala	Gly	Asn
				170					175					180

Phe	Val	Lys	Gly	Thr	Val	Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro	Ala
				185					190					195

Gly	Pro	Met	Phe	Glu	Gly	Ala	Asp	Ile	His	Lys	Arg	Leu	Ser	Pro
				200					205					210

Asp	Asp	Ala	Asp	Phe	Val	Asp	Val	Leu	His	Thr	Tyr	Thr	Arg	Ser
				215					220					225

Phe	Gly	Leu	Ser	Ile	Gly	Ile	Gln	Met	Pro	Val	Gly	His	Ile	Asp
				230					235					240

Ile	Tyr	Pro	Asn	Gly	Gly	Asp	Phe	Gln	Pro	Gly	Cys	Gly	Leu	Asn	
				245					250					255	
Asp	Val	Leu	Gly	Ser	Ile	Ala	Tyr	Gly	Thr	Ile	Thr	Glu	Val	Val	
				260					265					270	
Lys	Cys	Glu	His	Glu	Arg	Ala	Val	His	Leu	Phe	Val	Asp	Ser	Leu	
				275					280					285	
Val	Asn	Gln	Asp	Lys	Pro	Ser	Phe	Ala	Phe	Gln	Cys	Thr	Asp	Ser	
				290					295					300	
Asn	Arg	Phe	Lys	Lys	Gly	Ile	Cys	Leu	Ser	Cys	Arg	Lys	Asn	Arg	
				305					310					315	
Cys	Asn	Ser	Ile	Gly	Tyr	Asn	Ala	Lys	Lys	Met	Arg	Asn	Lys	Arg	
				320					325					330	
Asn	Ser	Lys	Met	Tyr	Leu	Lys	Thr	Arg	Ala	Gly	Met	Pro	Phe	Arg	
				335					340					345	
Gly	Asn	Leu	Gln	Ser	Leu	Glu	Cys	Pro							
				350											

<210> 179
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 179
 gtgagcatga gcgagccgctc cac 23

<210> 180
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 180
 gctattacaa cggttcttgc ggcagc 26

<210> 181
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 181
 ttgactctct ggtgaatcag gacaagccga gttttgcctt ccag 44

<210> 182

<211> 3240
<212> DNA
<213> Homo sapiens

<400> 182

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acgcgctgga ggagtggagc agcaccgggc cggccctggg ggctgacagt 150
cggcaaagtt tggcccgaag aggaagtggc ctcaaaccac ggcaggtggc 200
gaccaggcca gaccaggggc gctcgtgcc tgcgggcggg ctgtaggcga 250
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agaagagtgc ggcggcggac ggagaaaaca actccaaagt tggcgaaagg 350
caccgcccct actcccgggc tgccgcccgc tccccgccc cagccctggc 400
atccagagta cgggtcgagc cggggccatg gagccccct ggggaggcgg 450
caccaggag cctgggcgcc cggggctccg ccgcgacccc atcgggtaga 500
ccacagaagc tccgggaccc ttccggcacc tctggacagc ccaggatgct 550
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accggattat ttttccaaat catgcttgat aggaccccc agcagtgtct 650
ttagaagtgc agggcacctt acagaggccc ctggtccggg acagccgcac 700
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cagccctctg cagctgcccg ggggcaacgt caccatcact tacagctatg 900
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 ccaccatttg ggtggctggt tttaaaaagt aaagttotta gaggatcata 3000
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 tgggcagaac ctgaggtttt gccatccaca atccctccta cagggcctgg 3150
 ctcacaaaaa gagtgaaca aatgcttcta ttccatagct acggcattgc 3200
 tcagtaagtt gaggtcaaaa ataaaggaat catacatctc 3240

<210> 183

<211> 713

<212> PRT

<213> Homo sapiens

<400> 183

Met	Leu	Leu	Ala	Thr	Leu	Leu	Leu	Leu	Leu	Gly	Gly	Ala	Leu	1	5	10	15
Ala	His	Pro	Asp	Arg	Ile	Ile	Phe	Pro	Asn	His	Ala	Cys	Glu	Asp	20	25	30
Pro	Pro	Ala	Val	Leu	Leu	Glu	Val	Gln	Gly	Thr	Leu	Gln	Arg	Pro	35	40	45
Leu	Val	Arg	Asp	Ser	Arg	Thr	Ser	Pro	Ala	Asn	Cys	Thr	Trp	Leu	50	55	60
Ile	Leu	Gly	Ser	Lys	Glu	Gln	Thr	Val	Thr	Ile	Arg	Phe	Gln	Lys	65	70	75
Leu	His	Leu	Ala	Cys	Gly	Ser	Glu	Arg	Leu	Thr	Leu	Arg	Ser	Pro	80	85	90
Leu	Gln	Pro	Leu	Ile	Ser	Leu	Cys	Glu	Ala	Pro	Pro	Ser	Pro	Leu	95	100	105
Gln	Leu	Pro	Gly	Gly	Asn	Val	Thr	Ile	Thr	Tyr	Ser	Tyr	Ala	Gly	110	115	120
Ala	Arg	Ala	Pro	Met	Gly	Gln	Gly	Phe	Leu	Leu	Ser	Tyr	Ser	Gln	125	130	135
Asp	Trp	Leu	Met	Cys	Leu	Gln	Glu	Glu	Phe	Gln	Cys	Leu	Asn	His	140	145	150
Arg	Cys	Val	Ser	Ala	Val	Gln	Arg	Cys	Asp	Gly	Val	Asp	Ala	Cys	155	160	165
Gly	Asp	Gly	Ser	Asp	Glu	Ala	Gly	Cys	Ser	Ser	Asp	Pro	Phe	Pro			

170										175					180				
Gly	Leu	Thr	Pro	Arg	Pro	Val	Pro	Ser	Leu	Pro	Cys	Asn	Val	Thr					
				185					190					195					
Leu	Glu	Asp	Phe	Tyr	Gly	Val	Phe	Ser	Ser	Pro	Gly	Tyr	Thr	His					
				200					205					210					
Leu	Ala	Ser	Val	Ser	His	Pro	Gln	Ser	Cys	His	Trp	Leu	Leu	Asp					
				215					220					225					
Pro	His	Asp	Gly	Arg	Arg	Leu	Ala	Val	Arg	Phe	Thr	Ala	Leu	Asp					
				230					235					240					
Leu	Gly	Phe	Gly	Asp	Ala	Val	His	Val	Tyr	Asp	Gly	Pro	Gly	Pro					
				245					250					255					
Pro	Glu	Ser	Ser	Arg	Leu	Leu	Arg	Ser	Leu	Thr	His	Phe	Ser	Asn					
				260					265					270					
Gly	Lys	Ala	Val	Thr	Val	Glu	Thr	Leu	Ser	Gly	Gln	Ala	Val	Val					
				275					280					285					
Ser	Tyr	His	Thr	Val	Ala	Trp	Ser	Asn	Gly	Arg	Gly	Phe	Asn	Ala					
				290					295					300					
Thr	Tyr	His	Val	Arg	Gly	Tyr	Cys	Leu	Pro	Trp	Asp	Arg	Pro	Cys					
				305					310					315					
Gly	Leu	Gly	Ser	Gly	Leu	Gly	Ala	Gly	Glu	Gly	Leu	Gly	Glu	Arg					
				320					325					330					
Cys	Tyr	Ser	Glu	Ala	Gln	Arg	Cys	Asp	Gly	Ser	Trp	Asp	Cys	Ala					
				335					340					345					
Asp	Gly	Thr	Asp	Glu	Glu	Asp	Cys	Pro	Gly	Cys	Pro	Pro	Gly	His					
				350					355					360					
Phe	Pro	Cys	Gly	Ala	Ala	Gly	Thr	Ser	Gly	Ala	Thr	Ala	Cys	Tyr					
				365					370					375					
Leu	Pro	Ala	Asp	Arg	Cys	Asn	Tyr	Gln	Thr	Phe	Cys	Ala	Asp	Gly					
				380					385					390					
Ala	Asp	Glu	Arg	Arg	Cys	Arg	His	Cys	Gln	Pro	Gly	Asn	Phe	Arg					
				395					400					405					
Cys	Arg	Asp	Glu	Lys	Cys	Val	Tyr	Glu	Thr	Trp	Val	Cys	Asp	Gly					
				410					415					420					
Gln	Pro	Asp	Cys	Ala	Asp	Gly	Ser	Asp	Glu	Trp	Asp	Cys	Ser	Tyr					
				425					430					435					
Val	Leu	Pro	Arg	Lys	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser	Leu					
				440					445					450					
Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys					
				455					460					465					

Leu Tyr Ala Ile	Arg Thr Gln Glu Tyr	Ser Ile Phe Ala Pro	Leu
	470	475	480
Ser Arg Met Glu	Ala Glu Ile Val Gln	Gln Gln Ala Pro Pro	Ser
	485	490	495
Tyr Gly Gln Leu	Ile Ala Gln Gly Ala	Ile Pro Pro Val Glu	Asp
	500	505	510
Phe Pro Thr Glu	Asn Pro Asn Asp Asn	Ser Val Leu Gly Asn	Leu
	515	520	525
Arg Ser Leu Leu	Gln Ile Leu Arg Gln	Asp Met Thr Pro Gly	Gly
	530	535	540
Gly Pro Gly Ala	Arg Arg Arg Gln Arg	Gly Arg Leu Met Arg	Arg
	545	550	555
Leu Val Arg Arg	Leu Arg Arg Trp Gly	Leu Leu Pro Arg Thr	Asn
	560	565	570
Thr Pro Ala Arg	Ala Ser Glu Ala Arg	Ser Gln Val Thr Pro	Ser
	575	580	585
Ala Ala Pro Leu	Glu Ala Leu Asp Gly	Gly Thr Gly Pro Ala	Arg
	590	595	600
Glu Gly Gly Ala	Val Gly Gly Gln Asp	Gly Glu Gln Ala Pro	Pro
	605	610	615
Leu Pro Ile Lys	Ala Pro Leu Pro Ser	Ala Ser Thr Ser Pro	Ala
	620	625	630
Pro Thr Thr Val	Pro Glu Ala Pro Gly	Pro Leu Pro Ser Leu	Pro
	635	640	645
Leu Glu Pro Ser	Leu Leu Ser Gly Val	Val Gln Ala Leu Arg	Gly
	650	655	660
Arg Leu Leu Pro	Ser Leu Gly Pro Pro	Gly Pro Thr Arg Ser	Pro
	665	670	675
Pro Gly Pro His	Thr Ala Val Leu Ala	Leu Glu Asp Glu Asp	Asp
	680	685	690
Val Leu Leu Val	Pro Leu Ala Glu Pro	Gly Val Trp Val Ala	Glu
	695	700	705
Ala Glu Asp Glu	Pro Leu Leu Thr		
	710		

<210> 184

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 184
ggctgtcact gtggagacac 20

<210> 185

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 185

gcaaggtcat tacagctg 18

<210> 186

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 186

agaacatagg agcagtccca ctc 23

<210> 187

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 187

tgcttgctgc tgcacaatct cag 23

<210> 188

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 188

ggctattgct tgccttggga cagaccctgt ggcttaggct ctggc 45

<210> 189

<211> 663

<212> DNA

<213> Homo sapiens

<400> 189

cgagctgggc gagaagtagg ggagggcggt gctccgccgc ggtggcggtt 50

gctatcgctt cgcagaacct actcaggcag ccagctgaga agagttgagg 100

gaaagtgctg ctgctgggtc tgcagacgcg atggataacg tgcagccgaa 150

aataaaacat cgccccttct gcttcagtgt gaaaggccac gtgaagatgc 200
tgcggtggc actaactgtg acatctatga ccttttttat catcgacaaa 250
gcccctgaac catatattgt tatcactgga tttgaagtca ccgttatctt 300
atttttcata cttttatatg tactcagact tgatcgatta atgaagtggg 350
tattttggcc tttgcttgat attatcaact cactggtaac aacagtattc 400
atgctcatcg tatctgtggt ggcaactgata ccagaaacca caacattgac 450
agttggtgga ggggtgtttg cacttgtgac agcagtatgc tgtcttgccg 500
acggggccct tatttaccgg aagcttctgt tcaatcccag cggtccttac 550
cagaaaaagc ctgtgcatga aaaaaaagaa gttttgtaat tttatattac 600
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aaaaaaaaaa aaa 663

<210> 190

<211> 152

<212> PRT

<213> Homo sapiens

<400> 190

Met	Asp	Asn	Val	Gln	Pro	Lys	Ile	Lys	His	Arg	Pro	Phe	Cys	Phe	1	5	10	15
Ser	Val	Lys	Gly	His	Val	Lys	Met	Leu	Arg	Leu	Ala	Leu	Thr	Val	20	25	30	
Thr	Ser	Met	Thr	Phe	Phe	Ile	Ile	Ala	Gln	Ala	Pro	Glu	Pro	Tyr	35	40	45	
Ile	Val	Ile	Thr	Gly	Phe	Glu	Val	Thr	Val	Ile	Leu	Phe	Phe	Ile	50	55	60	
Leu	Leu	Tyr	Val	Leu	Arg	Leu	Asp	Arg	Leu	Met	Lys	Trp	Leu	Phe	65	70	75	
Trp	Pro	Leu	Leu	Asp	Ile	Ile	Asn	Ser	Leu	Val	Thr	Thr	Val	Phe	80	85	90	
Met	Leu	Ile	Val	Ser	Val	Leu	Ala	Leu	Ile	Pro	Glu	Thr	Thr	Thr	95	100	105	
Leu	Thr	Val	Gly	Gly	Gly	Val	Phe	Ala	Leu	Val	Thr	Ala	Val	Cys	110	115	120	
Cys	Leu	Ala	Asp	Gly	Ala	Leu	Ile	Tyr	Arg	Lys	Leu	Leu	Phe	Asn	125	130	135	
Pro	Ser	Gly	Pro	Tyr	Gln	Lys	Lys	Pro	Val	His	Glu	Lys	Lys	Glu	140	145	150	

Val Leu

<210> 191

<211> 495

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 78, 212, 234, 487

<223> unknown base

<400> 191

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ggcactaact gngacatcta tgaccttttt tatnatcgca caagcccctg 250

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atacttttat atgtactcag acttgatcga ttaatgaagt ggttattttg 350

gcctttgctt gatattatca actcactggc aacaacagta ttcattgctca 400

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<223> Synthetic oligonucleotide probe

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<223> Synthetic oligonucleotide probe

<400> 193

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<211> 1879
<212> DNA
<213> Homo sapien

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<211> 518

<212> PRT

<213> Homo sapien

<400> 196

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			35						40					45
Thr	Pro	Gly	Pro	Gly	Thr	Pro	Ala	Glu	Arg	His	Ala	Asp	Gly	Leu
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			65						70					75
Asn	Phe	Leu	Ala	Met	Val	Asp	Asn	Leu	Gln	Gly	Asp	Ser	Gly	Arg
			80						85					90
Gly	Tyr	Tyr	Leu	Glu	Met	Leu	Ile	Gly	Thr	Pro	Pro	Gln	Lys	Leu
			95						100					105

Gln	Ile	Leu	Val	Asp	Thr	Gly	Ser	Ser	Asn	Phe	Ala	Val	Ala	Gly	
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Thr	Pro	His	Ser	Tyr	Ile	Asp	Thr	Tyr	Phe	Asp	Thr	Glu	Arg	Ser	
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Ser	Thr	Tyr	Arg	Ser	Lys	Gly	Phe	Asp	Val	Thr	Val	Lys	Tyr	Thr	
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Gln	Gly	Ser	Trp	Thr	Gly	Phe	Val	Gly	Glu	Asp	Leu	Val	Thr	Ile	
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Pro	Lys	Gly	Phe	Asn	Thr	Ser	Phe	Leu	Val	Asn	Ile	Ala	Thr	Ile	
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Phe	Glu	Ser	Glu	Asn	Phe	Phe	Leu	Pro	Gly	Ile	Lys	Trp	Asn	Gly	
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Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Thr	Leu	Ala	Lys	Pro	Ser	Ser	Ser	
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Leu	Glu	Thr	Phe	Phe	Asp	Ser	Leu	Val	Thr	Gln	Ala	Asn	Ile	Pro	
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				230					235					240	
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Thr	Asn	Ser	Glu	Thr	Pro	Trp	Ser	Tyr	Phe	Pro	Lys	Ile	Ser	Ile	
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Tyr	Leu	Arg	Asp	Glu	Asn	Ser	Ser	Arg	Ser	Phe	Arg	Ile	Thr	Ile	
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Leu	Pro	Gln	Leu	Tyr	Ile	Gln	Pro	Met	Met	Gly	Ala	Gly	Leu	Asn	
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Val Ile Gly Ala	Thr Val Met Glu Gly	Phe Tyr Val Ile Phe Asp			
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Arg Ala Gln Lys	Arg Val Gly Phe Ala	Ala Ser Pro Cys Ala Glu			
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Ile Ala Gly Ala	Ala Val Ser Glu Ile	Ser Gly Pro Phe Ser Thr			
	440	445		450	
Glu Asp Val Ala	Ser Asn Cys Val Pro	Ala Gln Ser Leu Ser Glu			
	455	460		465	
Pro Ile Leu Trp	Ile Val Ser Tyr Ala	Leu Met Ser Val Cys Gly			
	470	475		480	
Ala Ile Leu Leu	Val Leu Ile Val Leu	Leu Leu Leu Pro Phe Arg			
	485	490		495	
Cys Gln Arg Arg	Pro Arg Asp Pro Glu	Val Val Asn Asp Glu Ser			
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Ser Leu Val Arg	His Arg Trp Lys				
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<220>
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<223> Synthetic oligonucleotide probe

<400> 200
gccttggtc gttctcttc 19

<210> 201
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 201
gtcctgtgc ctggatgg 18

<210> 202
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<212> DNA
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<400> 202
gacaagacta cctccgttgg tc 22

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<212> DNA

<213> Homo sapiens

<400> 205

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<210> 206
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 <212> PRT
 <213> Homo sapiens

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 Ser Gly Ile Gly Lys Met Thr Ala Leu Glu Leu Ala Arg Arg Gly
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 Ala Arg Val Val Leu Ala Cys Arg Ser Gln Glu Arg Gly Glu Ala
 65 70 75
 Ala Ala Phe Asp Leu Arg Gln Glu Ser Gly Asn Asn Glu Val Ile
 80 85 90
 Phe Met Ala Leu Asp Leu Ala Ser Leu Ala Ser Val Arg Ala Phe
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 Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile
 110 115 120
 His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe
 125 130 135
 Asn Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr
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Lys	Arg	Leu	Asp	Arg	Pro	Val	Val	Gly	Trp	Arg	Gln	Glu	Leu	Arg	
				185					190					195	
Ala	Tyr	Ala	Asp	Thr	Lys	Leu	Ala	Asn	Val	Leu	Phe	Ala	Arg	Glu	
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Leu	Ala	Asn	Gln	Leu	Glu	Ala	Thr	Gly	Val	Thr	Cys	Tyr	Ala	Ala	
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His	Pro	Gly	Pro	Val	Asn	Ser	Glu	Leu	Phe	Leu	Arg	His	Val	Pro	
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Gly	Trp	Leu	Arg	Pro	Leu	Leu	Arg	Pro	Leu	Ala	Trp	Leu	Val	Leu	
				245					250					255	
Arg	Ala	Pro	Arg	Gly	Gly	Ala	Gln	Thr	Pro	Leu	Tyr	Cys	Ala	Leu	
				260					265					270	
Gln	Glu	Gly	Ile	Glu	Pro	Leu	Ser	Gly	Arg	Tyr	Phe	Ala	Asn	Cys	
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His	Val	Glu	Glu	Val	Pro	Pro	Ala	Ala	Arg	Asp	Asp	Arg	Ala	Ala	
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His	Arg	Leu	Trp	Glu	Ala	Ser	Lys	Arg	Leu	Ala	Gly	Leu	Gly	Pro	
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Gly	Glu	Asp	Ala	Glu	Pro	Asp	Glu	Asp	Pro	Gln	Ser	Glu	Asp	Ser	
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Glu	Ala	Pro	Ser	Ser	Leu	Ser	Thr	Pro	His	Pro	Glu	Glu	Pro	Thr	
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Val	Ser	Gln	Pro	Tyr	Pro	Ser	Pro	Gln	Ser	Ser	Pro	Asp	Leu	Ser	
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<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 207

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<210> 208
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<220>
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<400> 208
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<223> Synthetic oligonucleotide probe

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<213> Homo sapiens

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tgacctggag ccctcaggga gcaaaacatc atctccacct gactcctagc 3250
cactgctttc tctctgtgc catccactcc caccaccagg ttgttttggc 3300
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<210> 211
 <211> 985
 <212> PRT
 <213> Homo sapiens

<400> 211
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 20 25 30
 Cys Gln Ala Ser Gly Gln Pro Pro Pro Thr Ile Arg Trp Leu Leu
 35 40 45
 Asn Gly Gln Pro Leu Ser Met Val Pro Pro Asp Pro His His Leu
 50 55 60
 Leu Pro Asp Gly Thr Leu Leu Leu Leu Gln Pro Pro Ala Arg Gly
 65 70 75
 His Ala His Asp Gly Gln Ala Leu Ser Thr Asp Leu Gly Val Tyr
 80 85 90
 Thr Cys Glu Ala Ser Asn Arg Leu Gly Thr Ala Val Ser Arg Gly
 95 100 105
 Ala Arg Leu Ser Val Ala Val Leu Arg Glu Asp Phe Gln Ile Gln
 110 115 120
 Pro Arg Asp Met Val Ala Val Val Gly Glu Gln Phe Thr Leu Glu
 125 130 135
 Cys Gly Pro Pro Trp Gly His Pro Glu Pro Thr Val Ser Trp Trp
 140 145 150
 Lys Asp Gly Lys Pro Leu Ala Leu Gln Pro Gly Arg His Thr Val
 155 160 165
 Ser Gly Gly Ser Leu Leu Met Ala Arg Ala Glu Lys Ser Asp Glu
 170 175 180
 Gly Thr Tyr Met Cys Val Ala Thr Asn Ser Ala Gly His Arg Glu
 185 190 195
 Ser Arg Ala Ala Arg Val Ser Ile Gln Glu Pro Gln Asp Tyr Thr
 200 205 210
 Glu Pro Val Glu Leu Leu Ala Val Arg Ile Gln Leu Glu Asn Val
 215 220 225
 Thr Leu Leu Asn Pro Asp Pro Ala Glu Gly Pro Lys Pro Arg Pro
 230 235 240

Ala	Val	Trp	Leu	Ser 245	Trp	Lys	Val	Ser	Gly 250	Pro	Ala	Ala	Pro	Ala 255
Gln	Ser	Tyr	Thr	Ala 260	Leu	Phe	Arg	Thr	Gln 265	Thr	Ala	Pro	Gly	Gly 270
Gln	Gly	Ala	Pro	Trp 275	Ala	Glu	Glu	Leu	Leu 280	Ala	Gly	Trp	Gln	Ser 285
Ala	Glu	Leu	Gly	Gly 290	Leu	His	Trp	Gly	Gln 295	Asp	Tyr	Glu	Phe	Lys 300
Val	Arg	Pro	Ser	Ser 305	Gly	Arg	Ala	Arg	Gly 310	Pro	Asp	Ser	Asn	Val 315
Leu	Leu	Leu	Arg	Leu 320	Pro	Glu	Lys	Val	Pro 325	Ser	Ala	Pro	Pro	Gln 330
Glu	Val	Thr	Leu	Lys 335	Pro	Gly	Asn	Gly	Thr 340	Val	Phe	Val	Ser	Trp 345
Val	Pro	Pro	Pro	Ala 350	Glu	Asn	His	Asn	Gly 355	Ile	Ile	Arg	Gly	Tyr 360
Gln	Val	Trp	Ser	Leu 365	Gly	Asn	Thr	Ser	Leu 370	Pro	Pro	Ala	Asn	Trp 375
Thr	Val	Val	Gly	Glu 380	Gln	Thr	Gln	Leu	Glu 385	Ile	Ala	Thr	His	Met 390
Pro	Gly	Ser	Tyr	Cys 395	Val	Gln	Val	Ala	Ala 400	Val	Thr	Gly	Ala	Gly 405
Ala	Gly	Glu	Pro	Ser 410	Arg	Pro	Val	Cys	Leu 415	Leu	Leu	Glu	Gln	Ala 420
Met	Glu	Arg	Ala	Thr 425	Gln	Glu	Pro	Ser	Glu 430	His	Gly	Pro	Trp	Thr 435
Leu	Glu	Gln	Leu	Arg 440	Ala	Thr	Leu	Lys	Arg 445	Pro	Glu	Val	Ile	Ala 450
Thr	Cys	Gly	Val	Ala 455	Leu	Trp	Leu	Leu	Leu 460	Leu	Gly	Thr	Ala	Val 465
Cys	Ile	His	Arg	Arg 470	Arg	Arg	Ala	Arg	Val 475	His	Leu	Gly	Pro	Gly 480
Leu	Tyr	Arg	Tyr	Thr 485	Ser	Glu	Asp	Ala	Ile 490	Leu	Lys	His	Arg	Met 495
Asp	His	Ser	Asp	Ser 500	Gln	Trp	Leu	Ala	Asp 505	Thr	Trp	Arg	Ser	Thr 510
Ser	Gly	Ser	Arg	Asp 515	Leu	Ser	Ser	Ser	Ser 520	Ser	Leu	Ser	Ser	Arg 525
Leu	Gly	Ala	Asp	Ala	Arg	Asp	Pro	Leu	Asp	Cys	Arg	Arg	Ser	Leu

530					535					540				
Leu	Ser	Trp	Asp	Ser	Arg	Ser	Pro	Gly	Val	Pro	Leu	Leu	Pro	Asp
				545					550					555
Thr	Ser	Thr	Phe	Tyr	Gly	Ser	Leu	Ile	Ala	Glu	Leu	Pro	Ser	Ser
				560					565					570
Thr	Pro	Ala	Arg	Pro	Ser	Pro	Gln	Val	Pro	Ala	Val	Arg	Arg	Leu
				575					580					585
Pro	Pro	Gln	Leu	Ala	Gln	Leu	Ser	Ser	Pro	Cys	Ser	Ser	Ser	Asp
				590					595					600
Ser	Leu	Cys	Ser	Arg	Arg	Gly	Leu	Ser	Ser	Pro	Arg	Leu	Ser	Leu
				605					610					615
Ala	Pro	Ala	Glu	Ala	Trp	Lys	Ala	Lys	Lys	Lys	Gln	Glu	Leu	Gln
				620					625					630
His	Ala	Asn	Ser	Ser	Pro	Leu	Leu	Arg	Gly	Ser	His	Ser	Leu	Glu
				635					640					645
Leu	Arg	Ala	Cys	Glu	Leu	Gly	Asn	Arg	Gly	Ser	Lys	Asn	Leu	Ser
				650					655					660
Gln	Ser	Pro	Gly	Ala	Val	Pro	Gln	Ala	Leu	Val	Ala	Trp	Arg	Ala
				665					670					675
Leu	Gly	Pro	Lys	Leu	Leu	Ser	Ser	Ser	Asn	Glu	Leu	Val	Thr	Arg
				680					685					690
His	Leu	Pro	Pro	Ala	Pro	Leu	Phe	Pro	His	Glu	Thr	Pro	Pro	Thr
				695					700					705
Gln	Ser	Gln	Gln	Thr	Gln	Pro	Pro	Val	Ala	Pro	Gln	Ala	Pro	Ser
				710					715					720
Ser	Ile	Leu	Leu	Pro	Ala	Ala	Pro	Ile	Pro	Ile	Leu	Ser	Pro	Cys
				725					730					735
Ser	Pro	Pro	Ser	Pro	Gln	Ala	Ser	Ser	Leu	Ser	Gly	Pro	Ser	Pro
				740					745					750
Ala	Ser	Ser	Arg	Leu	Ser	Ser	Ser	Ser	Leu	Ser	Ser	Leu	Gly	Glu
				755					760					765
Asp	Gln	Asp	Ser	Val	Leu	Thr	Pro	Glu	Glu	Val	Ala	Leu	Cys	Leu
				770					775					780
Glu	Leu	Ser	Glu	Gly	Glu	Glu	Thr	Pro	Arg	Asn	Ser	Val	Ser	Pro
				785					790					795
Met	Pro	Arg	Ala	Pro	Ser	Pro	Pro	Thr	Thr	Tyr	Gly	Tyr	Ile	Ser
				800					805					810
Val	Pro	Thr	Ala	Ser	Glu	Phe	Thr	Asp	Met	Gly	Arg	Thr	Gly	Gly
				815					820					825

Gly	Val	Gly	Pro	Lys	Gly	Gly	Val	Leu	Leu	Cys	Pro	Pro	Arg	Pro	
				830					835					840	
Cys	Leu	Thr	Pro	Thr	Pro	Ser	Glu	Gly	Ser	Leu	Ala	Asn	Gly	Trp	
				845					850					855	
Gly	Ser	Ala	Ser	Glu	Asp	Asn	Ala	Ala	Ser	Ala	Arg	Ala	Ser	Leu	
				860					865					870	
Val	Ser	Ser	Ser	Asp	Gly	Ser	Phe	Leu	Ala	Asp	Ala	His	Phe	Ala	
				875					880					885	
Arg	Ala	Leu	Ala	Val	Ala	Val	Asp	Ser	Phe	Gly	Phe	Gly	Leu	Glu	
				890					895					900	
Pro	Arg	Glu	Ala	Asp	Cys	Val	Phe	Ile	Asp	Ala	Ser	Ser	Pro	Pro	
				905					910					915	
Ser	Pro	Arg	Asp	Glu	Ile	Phe	Leu	Thr	Pro	Asn	Leu	Ser	Leu	Pro	
				920					925					930	
Leu	Trp	Glu	Trp	Arg	Pro	Asp	Trp	Leu	Glu	Asp	Met	Glu	Val	Ser	
				935					940					945	
His	Thr	Gln	Arg	Leu	Gly	Arg	Gly	Met	Pro	Pro	Trp	Pro	Pro	Asp	
				950					955					960	
Ser	Gln	Ile	Ser	Ser	Gln	Arg	Ser	Gln	Leu	His	Cys	Arg	Met	Pro	
				965					970					975	
Lys	Ala	Gly	Ala	Ser	Pro	Val	Asp	Tyr	Ser						
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<210> 212

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 212

gaagggacct acatgtgtgt ggcc 24

<210> 213

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 213

actgaccttc cagctgagcc acac 24

<210> 214

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 214

aggactacac ggagcctgtg gagcttctgg ctgtgcgaat tcagctggaa 50

<210> 215

<211> 2749

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 1869, 1887

<223> unknown base

<400> 215

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ttgcctgctg ctcccaggtt atgaagccct ggagggccca gaggaaatca 100

gcgggttcga aggggacact gtgtccctgc agtgcaccta cagggaagag 150

ctgagggacc accggaagta ctggtgcagg aagggtggga tcctcttctc 200

tcgctgctct ggcaccatct atgcagaaga agaaggccag gagacaatga 250

agggcaggggt gtccatccgt gacagccgcc aggagctctc gctcattgtg 300

accctgtgga acctcaccct gcaagacgct ggggagtact ggtgtgggggt 350

cgaaaaaacgg ggccccgatg agtcttttact gatctctctg ttctgtcttc 400

caggaccctg ctgtcctccc tccccttctc ccaccttcca gcctctgggt 450

acaacacgcc tgcagcccaa ggcaaaagct cagcaaacc agcccccagg 500

attgacttct cctgggctct acccggcagc caccacagcc aagcagggga 550

agacaggggc tgaggcccct ccattgccag ggacttccca gtacgggcac 600

gaaaggactt ctcagtacac aggaacctct cctcaccag cgacctctcc 650

tcctgcaggg agtcccgcc ccccatgca gctggactcc acctcagcag 700

aggacaccag tccagctctc agcagtggca gctctaagcc cagggtgtcc 750

atcccgatgg tcgcataact ggccccagtc ctggtgctgc tgagccttct 800

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<210> 216

<211> 332

<212> PRT

<213> Homo sapiens

<400> 216

Met	Arg	Leu	Leu	Val	Leu	Leu	Trp	Gly	Cys	Leu	Leu	Leu	Pro	Gly	1	5	10	15
Tyr	Glu	Ala	Leu	Glu	Gly	Pro	Glu	Glu	Ile	Ser	Gly	Phe	Glu	Gly	20	25	30	
Asp	Thr	Val	Ser	Leu	Gln	Cys	Thr	Tyr	Arg	Glu	Glu	Leu	Arg	Asp	35	40	45	
His	Arg	Lys	Tyr	Trp	Cys	Arg	Lys	Gly	Gly	Ile	Leu	Phe	Ser	Arg	50	55	60	
Cys	Ser	Gly	Thr	Ile	Tyr	Ala	Glu	Glu	Glu	Gly	Gln	Glu	Thr	Met	65	70	75	
Lys	Gly	Arg	Val	Ser	Ile	Arg	Asp	Ser	Arg	Gln	Glu	Leu	Ser	Leu	80	85	90	
Ile	Val	Thr	Leu	Trp	Asn	Leu	Thr	Leu	Gln	Asp	Ala	Gly	Glu	Tyr	95	100	105	
Trp	Cys	Gly	Val	Glu	Lys	Arg	Gly	Pro	Asp	Glu	Ser	Leu	Leu	Ile	110	115	120	
Ser	Leu	Phe	Val	Phe	Pro	Gly	Pro	Cys	Cys	Pro	Pro	Ser	Pro	Ser	125	130	135	
Pro	Thr	Phe	Gln	Pro	Leu	Ala	Thr	Thr	Arg	Leu	Gln	Pro	Lys	Ala	140	145	150	
Lys	Ala	Gln	Gln	Thr	Gln	Pro	Pro	Gly	Leu	Thr	Ser	Pro	Gly	Leu	155	160	165	
Tyr	Pro	Ala	Ala	Thr	Thr	Ala	Lys	Gln	Gly	Lys	Thr	Gly	Ala	Glu	170	175	180	
Ala	Pro	Pro	Leu	Pro	Gly	Thr	Ser	Gln	Tyr	Gly	His	Glu	Arg	Thr	185	190	195	
Ser	Gln	Tyr	Thr	Gly	Thr	Ser	Pro	His	Pro	Ala	Thr	Ser	Pro	Pro				

	200		205		210
Ala Gly Ser Ser	Arg Pro Pro Met Gln	Leu Asp Ser Thr Ser	Ala		
	215	220	225		
Glu Asp Thr Ser	Pro Ala Leu Ser Ser	Gly Ser Ser Lys Pro	Arg		
	230	235	240		
Val Ser Ile Pro	Met Val Arg Ile Leu	Ala Pro Val Leu Val	Leu		
	245	250	255		
Leu Ser Leu Leu	Ser Ala Ala Gly Leu	Ile Ala Phe Cys Ser	His		
	260	265	270		
Leu Leu Leu Trp	Arg Lys Glu Ala Gln	Gln Ala Thr Glu Thr	Gln		
	275	280	285		
Arg Asn Glu Lys	Phe Trp Leu Ser Arg	Leu Thr Ala Glu Glu	Lys		
	290	295	300		
Glu Ala Pro Ser	Gln Ala Pro Glu Gly	Asp Val Ile Ser Met	Pro		
	305	310	315		
Pro Leu His Thr	Ser Glu Glu Glu Leu	Gly Phe Ser Lys Phe	Val		
	320	325	330		

Ser Ala

<210> 217

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 217

ccctgcagtg cacctacagg gaag 24

<210> 218

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 218

ctgtcttccc ctgcttggct gtgg 24

<210> 219

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 219
gggtgcaggaa gggtgggata ctcttctctc gctgctctgg ccacatc 47

<210> 220

<211> 950

<212> DNA

<213> Homo sapiens

<400> 220

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ggggtggcag gagccgcaga gccagagcag acagccgaga aacagggtga 100
cagtgtgaaa gaaccagtgg tctcgtctctg ttgccagggc tagagtgtac 150
tggcgtgatc atagctcact gcagcctcag actcctggac ttgagaaatc 200
ctcctgcctt agcctcctgc atatctggga ctccaggggt gcactcaagc 250
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gatggacgga accatgcaca gcaggctggg aaatgtggtt tggttcctga 900
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<210> 221

<211> 146

<212> PRT

<213> Homo sapiens

<400> 221

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Ser	Glu	Ala	Lys	Leu	Tyr	Gly	Arg	Cys	Glu	Leu	Ala	Arg	Val	Leu
				20					25					30

His	Asp	Phe	Gly	Leu	Asp	Gly	Tyr	Arg	Gly	Tyr	Ser	Leu	Ala	Asp
				35					40					45
Trp	Val	Cys	Leu	Ala	Tyr	Phe	Thr	Ser	Gly	Phe	Asn	Ala	Ala	Ala
				50					55					60
Leu	Asp	Tyr	Glu	Ala	Asp	Gly	Ser	Thr	Asn	Asn	Gly	Ile	Phe	Gln
				65					70					75
Ile	Asn	Ser	Arg	Arg	Trp	Cys	Ser	Asn	Leu	Thr	Pro	Asn	Val	Pro
				80					85					90
Asn	Val	Cys	Arg	Met	Tyr	Cys	Ser	Asp	Leu	Leu	Asn	Pro	Asn	Leu
				95					100					105
Lys	Asp	Thr	Val	Ile	Cys	Ala	Met	Lys	Ile	Thr	Gln	Glu	Pro	Gln
				110					115					120
Gly	Leu	Gly	Tyr	Trp	Glu	Ala	Trp	Arg	His	His	Cys	Gln	Gly	Lys
				125					130					135
Asp	Leu	Thr	Glu	Trp	Val	Asp	Gly	Cys	Asp	Phe				
				140					145					

<210> 222

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 222

gggatcatgt tgttggccct ggtc 24

<210> 223

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 223

gcaaggcaga ccagtcagc cag 23

<210> 224

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 224

ctgcctgcta ccctccaagt gaggccaagc tctacggtcg ttgtg 45

<210> 225

<211> 2049
<212> DNA
<213> Homo sapiens

<400> 225

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cgagcaactg gctgtacctg gccaaactgt cgtcgggtgg gagcatctca 150
gaggaggaga cgtgcgagaa actcaagggc ctgatccaga ggcagggtgca 200
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ctagccctgc gccggcaacc acctagtggc ccagggaagg ccgataattt 1150
aaacagtctc ccaccaccta cccaagaga tactggttgt attttttgtt 1200
ctggttttgt ttttggttcc tcatgttatt tattgccgaa accaggcagg 1250
caacccaag ggcaccaacc agggcctccc caaagcctgg gcctttgtgg 1300
ctgccactga ccaaagggac cttgctcgtg ccgctggctg cccgcatgtg 1350

Ala	Phe	Ala	Val	Thr	Arg	Ala	Cys	Ser	Ser	Gly	Glu	Leu	Glu	Lys	125	130	135
Cys	Gly	Cys	Asp	Arg	Thr	Val	His	Gly	Val	Ser	Pro	Gln	Gly	Phe	140	145	150
Gln	Trp	Ser	Gly	Cys	Ser	Asp	Asn	Ile	Ala	Tyr	Gly	Val	Ala	Phe	155	160	165
Ser	Gln	Ser	Phe	Val	Asp	Val	Arg	Glu	Arg	Ser	Lys	Gly	Ala	Ser	170	175	180
Ser	Ser	Arg	Ala	Leu	Met	Asn	Leu	His	Asn	Asn	Glu	Ala	Gly	Arg	185	190	195
Lys	Ala	Ile	Leu	Thr	His	Met	Arg	Val	Glu	Cys	Lys	Cys	His	Gly	200	205	210
Val	Ser	Gly	Ser	Cys	Glu	Val	Lys	Thr	Cys	Trp	Arg	Ala	Val	Pro	215	220	225
Pro	Phe	Arg	Gln	Val	Gly	His	Ala	Leu	Lys	Glu	Lys	Phe	Asp	Gly	230	235	240
Ala	Thr	Glu	Val	Glu	Pro	Arg	Arg	Val	Gly	Ser	Ser	Arg	Ala	Leu	245	250	255
Val	Pro	Arg	Asn	Ala	Gln	Phe	Lys	Pro	His	Thr	Asp	Glu	Asp	Leu	260	265	270
Val	Tyr	Leu	Glu	Pro	Ser	Pro	Asp	Phe	Cys	Glu	Gln	Asp	Met	Arg	275	280	285
Ser	Gly	Val	Leu	Gly	Thr	Arg	Gly	Arg	Thr	Cys	Asn	Lys	Thr	Ser	290	295	300
Lys	Ala	Ile	Asp	Gly	Cys	Glu	Leu	Leu	Cys	Cys	Gly	Arg	Gly	Phe	305	310	315
His	Thr	Ala	Gln	Val	Glu	Leu	Ala	Glu	Arg	Cys	Ser	Cys	Lys	Phe	320	325	330
His	Trp	Cys	Cys	Phe	Val	Lys	Cys	Arg	Gln	Cys	Gln	Arg	Leu	Val	335	340	345
Glu	Leu	His	Thr	Cys	Arg										350		

<210> 227

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 227

gctgcagctg caaattccac tgg 23

<210> 228
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 228
tgggtgggaga ctgttttaa at tatcggcc 28

<210> 229
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 229
tgcttcgtca agtgccggca gtgccagcgg ctctgtggagt t 41

<210> 230
<211> 1355
<212> DNA
<213> Homo sapiens

<400> 230
cggacgcgtg ggccggacgc tgggcccgcg cgtgggcccga cgcgtgggct 50
gggtgcctgc atcgccatgg acaccaccag gtacagcaag tggggcggca 100
gctccgagga ggtccccgga gggccctggg gacgctgggt gcaactggagc 150
aggagacccc tcttcttggc cctggctgtc ctggtcacca cagtcctttg 200
ggctgtgatt ctgagtatcc tattgtccaa ggccctccac gagcgccgcg 250
cgctgcttga cggccacgac ctgctgagga caaacgcctc gaagcagacg 300
gcggcgctgg gtgccctgaa ggaggaggtc ggagactgcc acagctgctg 350
ctcggggacg caggcgcagc tgcagaccac gcgcgcggag cttggggagg 400
cgcaggcgaa gctgatggag caggagagcg ccctgcggga actgcgtgag 450
cgcgtgaccc agggcttggc tgaagccggc aggggcccgtg aggacgtccg 500
cactgagctg ttccggggcg tggaggccgt gaggctccag aacaactcct 550
gcgagccgtg cccacgtcg tggctgtcct tcgagggtc ctgctacttt 600
ttctctgtgc caaagacgac gtgggcccgc gcgcaggatc actgcgcaga 650
tgccagcgcg cacctggtga tcgttggggg cctggatgag cagggttcc 700
tcactcgga cagcgtggc cgtggttact ggctgggcct gagggtgtg 750

cgccatctgg gcaaggttca gggctaccag tgggtggacg gagtctctct 800
cagcttcagc cactggaacc agggagagcc caatgacgct tgggggcgcg 850
agaactgtgt catgatgctg cacacggggc tgtggaacga cgcaccgtgt 900
gacagcgaga aggacggctg gatctgtgag aaaaggcaca actgctgacc 950
ccgcccagtg ccttgagacc gcgcccattg cagcatgtcg tatcctgggg 1000
gctgctcacc tccctggctc ctggagctga ttgccaaaga gtttttttct 1050
tcctcatcca ccgctgctga gtctcagaaa cacttggtccc aacatagccc 1100
tgtccagccc agtgccctggg ctctgggacc tccatgccga cctcatccta 1150
actccactca cgcagaccca acctaacctc cactagctcc aaaatccctg 1200
ctcctgcgtc cccgtgatat gcctccactt ctctccctaa ccaaggttag 1250
gtgactgagg actggagctg tttggttttc tcgcattttc caccaaactg 1300
gaagctgttt ttgcagcctg aggaagcatc aataaatatt tgagaaatga 1350
aaaaa 1355

<210> 231

<211> 293

<212> PRT

<213> Homo sapiens

<400> 231

Met	Asp	Thr	Thr	Arg	Tyr	Ser	Lys	Trp	Gly	Gly	Ser	Ser	Glu	Glu	1	5	10	15
Val	Pro	Gly	Gly	Pro	Trp	Gly	Arg	Trp	Val	His	Trp	Ser	Arg	Arg	20	25	30	
Pro	Leu	Phe	Leu	Ala	Leu	Ala	Val	Leu	Val	Thr	Thr	Val	Leu	Trp	35	40	45	
Ala	Val	Ile	Leu	Ser	Ile	Leu	Leu	Ser	Lys	Ala	Ser	Thr	Glu	Arg	50	55	60	
Ala	Ala	Leu	Leu	Asp	Gly	His	Asp	Leu	Leu	Arg	Thr	Asn	Ala	Ser	65	70	75	
Lys	Gln	Thr	Ala	Ala	Leu	Gly	Ala	Leu	Lys	Glu	Glu	Val	Gly	Asp	80	85	90	
Cys	His	Ser	Cys	Cys	Ser	Gly	Thr	Gln	Ala	Gln	Leu	Gln	Thr	Thr	95	100	105	
Arg	Ala	Glu	Leu	Gly	Glu	Ala	Gln	Ala	Lys	Leu	Met	Glu	Gln	Glu	110	115	120	
Ser	Ala	Leu	Arg	Glu	Leu	Arg	Glu	Arg	Val	Thr	Gln	Gly	Leu	Ala	125	130	135	

Glu	Ala	Gly	Arg	Gly	Arg	Glu	Asp	Val	Arg	Thr	Glu	Leu	Phe	Arg	
				140					145					150	
Ala	Leu	Glu	Ala	Val	Arg	Leu	Gln	Asn	Asn	Ser	Cys	Glu	Pro	Cys	
				155					160					165	
Pro	Thr	Ser	Trp	Leu	Ser	Phe	Glu	Gly	Ser	Cys	Tyr	Phe	Phe	Ser	
				170					175					180	
Val	Pro	Lys	Thr	Thr	Trp	Ala	Ala	Ala	Gln	Asp	His	Cys	Ala	Asp	
				185					190					195	
Ala	Ser	Ala	His	Leu	Val	Ile	Val	Gly	Gly	Leu	Asp	Glu	Gln	Gly	
				200					205					210	
Phe	Leu	Thr	Arg	Asn	Thr	Arg	Gly	Arg	Gly	Tyr	Trp	Leu	Gly	Leu	
				215					220					225	
Arg	Ala	Val	Arg	His	Leu	Gly	Lys	Val	Gln	Gly	Tyr	Gln	Trp	Val	
				230					235					240	
Asp	Gly	Val	Ser	Leu	Ser	Phe	Ser	His	Trp	Asn	Gln	Gly	Glu	Pro	
				245					250					255	
Asn	Asp	Ala	Trp	Gly	Arg	Glu	Asn	Cys	Val	Met	Met	Leu	His	Thr	
				260					265					270	
Gly	Leu	Trp	Asn	Asp	Ala	Pro	Cys	Asp	Ser	Glu	Lys	Asp	Gly	Trp	
				275					280					285	
Ile	Cys	Glu	Lys	Arg	His	Asn	Cys								
				290											

<210> 232

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 232

gcgagaactg tgatcatgatg ctgc 24

<210> 233

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 233

gtttctgaga ctgagcagcg gtgg 24

<210> 234

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 234

caccgtgtga cagcgagaag gacggctgga tctgtgagaa aaggcacaac 50

<210> 235

<211> 1847

<212> DNA

<213> Homo sapiens

<400> 235

gccaggggaa gagggatgatc cgacccgggg aaggtcgctg ggcagggcga 50

gttgggaaag cggcagcccc cgccgcccc gcagcccctt ctctctcttt 100

ctccacgctc ctatctgcct ctcgctggag gccaggccgt gcagcatcga 150

agacaggagg aactggagcc tcattggccg gcccgggcg ccggcctcgg 200

gcttaaataag gagctccggg ctctggctgg gaccgaccg ctgccggccg 250

cgctcccgct gtcctgccg ggtgatggaa aacccagcc cggccgccgc 300

cctgggcaag gccctctgcg ctctctctct ggccactctc ggcgccgccg 350

gccagcctct tgggggagag tccatctgtt ccgccagagc cccggccaaa 400

tacagcatca cttcacggg caagtggagc cagacggcct tccccagca 450

gtacccctg ttccgcccc ctgcgcagtg gtcttcgctg ctgggggccg 500

cgcatagctc cgactacagc atgtggagga agaaccagta cgtcagtaac 550

gggctgcgcg actttgcgga gcgcggcgag gcctgggcgc tgatgaagga 600

gatcgaggcg gcgggggagg cgctgcagag cgtgcacgag gtgttttcgg 650

cgcccgccgt cccagcggc accgggcaga cgtcggcgga gctggaggtg 700

cagcgcaggc actcgctggt ctcgtttggt gtgcgcacg tgcccagccc 750

cgactggttc gtgggcgtgg acagcctgga cctgtgcgac ggggaccgtt 800

ggcgggaaca ggcggcgctg gacctgtacc cctacgacgc cgggacggac 850

agcggcttca cttctctc ccccaacttc gccaccatcc cgcaggacac 900

ggtgaccgag ataacgtcct cctctcccag ccacccggcc aactccttct 950

actacccgcg gctgaaggcc ctgcctcca togccagggt gacactgctg 1000

cggctgcgac agagccccag ggccttcac cctcccgccc cagtctgccc 1050

cagcagggac aatgagattg tagacagcgc ctcaattcca gaaacgccgc 1100

tggactgcga ggtctccctg tggtcgtcct ggggactgtg cggaggccac 1150
 tgtgggagggc tcgggaccaa gagcaggact cgctacgtcc ggggccagcc 1200
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 gtctgctctc agcctcctcc tctgcagga taaagtcac cccaaggctc 1550
 cagctactct aaattatgtc tccttataag ttattgtctg tccaggagat 1600
 tgtccttcat cgtccagggg cctgggtccc acgtggttgc agatacctca 1650
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 agcgggggcc acttgagaag tgaataaatg gggcggtttc ggaagcgtca 1750
 gtgtttccat gttatggatc tctctgcgtt tgaataaaga ctatctctgt 1800
 tgctcacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1847

<210> 236

<211> 331

<212> PRT

<213> Homo sapiens

<400> 236

Met	Glu	Asn	Pro	Ser	Pro	Ala	Ala	Ala	Leu	Gly	Lys	Ala	Leu	Cys
1				5					10					15
Ala	Leu	Leu	Leu	Ala	Thr	Leu	Gly	Ala	Ala	Gly	Gln	Pro	Leu	Gly
				20					25					30
Gly	Glu	Ser	Ile	Cys	Ser	Ala	Arg	Ala	Pro	Ala	Lys	Tyr	Ser	Ile
				35					40					45
Thr	Phe	Thr	Gly	Lys	Trp	Ser	Gln	Thr	Ala	Phe	Pro	Lys	Gln	Tyr
				50					55					60
Pro	Leu	Phe	Arg	Pro	Pro	Ala	Gln	Trp	Ser	Ser	Leu	Leu	Gly	Ala
				65					70					75
Ala	His	Ser	Ser	Asp	Tyr	Ser	Met	Trp	Arg	Lys	Asn	Gln	Tyr	Val
				80					85					90
Ser	Asn	Gly	Leu	Arg	Asp	Phe	Ala	Glu	Arg	Gly	Glu	Ala	Trp	Ala
				95					100					105
Leu	Met	Lys	Glu	Ile	Glu	Ala	Ala	Gly	Glu	Ala	Leu	Gln	Ser	Val

	110		115		120
His Glu Val Phe	Ser Ala Pro Ala Val	Pro Ser Gly Thr Gly Gln			
	125	130			135
Thr Ser Ala Glu	Leu Glu Val Gln Arg	Arg His Ser Leu Val Ser			
	140	145			150
Phe Val Val Arg	Ile Val Pro Ser Pro	Asp Trp Phe Val Gly Val			
	155	160			165
Asp Ser Leu Asp	Leu Cys Asp Gly Asp	Arg Trp Arg Glu Gln Ala			
	170	175			180
Ala Leu Asp Leu	Tyr Pro Tyr Asp Ala	Gly Thr Asp Ser Gly Phe			
	185	190			195
Thr Phe Ser Ser	Pro Asn Phe Ala Thr	Ile Pro Gln Asp Thr Val			
	200	205			210
Thr Glu Ile Thr	Ser Ser Ser Pro Ser	His Pro Ala Asn Ser Phe			
	215	220			225
Tyr Tyr Pro Arg	Leu Lys Ala Leu Pro	Pro Ile Ala Arg Val Thr			
	230	235			240
Leu Leu Arg Leu	Arg Gln Ser Pro Arg	Ala Phe Ile Pro Pro Ala			
	245	250			255
Pro Val Leu Pro	Ser Arg Asp Asn Glu	Ile Val Asp Ser Ala Ser			
	260	265			270
Val Pro Glu Thr	Pro Leu Asp Cys Glu	Val Ser Leu Trp Ser Ser			
	275	280			285
Trp Gly Leu Cys	Gly Gly His Cys Gly	Arg Leu Gly Thr Lys Ser			
	290	295			300
Arg Thr Arg Tyr	Val Arg Val Gln Pro	Ala Asn Asn Gly Ser Pro			
	305	310			315
Cys Pro Glu Leu	Glu Glu Glu Ala Glu	Cys Val Pro Asp Asn Cys			
	320	325			330

Val

<210> 237
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 237
 cagcactgcc aggggaagag gg 22

<210> 238
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 238
 caggactcgc tacgtccg 18

 <210> 239
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 239
 cagccccttc tcctcctttc tccc 24

 <210> 240
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 240
 gcagttatca gggacgcact cagcc 25

 <210> 241
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 241
 ccagcgagag gcagatag 18

 <210> 242
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 242
 cggtcaccgt gtcctgcggg atg 23

 <210> 243
 <211> 42
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 243

cagcccccttc tcctcctttc tcccacgtcc tatctgcctc tc 42

<210> 244

<211> 1894

<212> DNA

<213> Homo sapiens

<400> 244

ggcggcgctcc gtgaggggct cctttgggca ggggtagtgt ttggtgtccc 50
tgtcttgcgt gatattgaca aactgaagct ttcctgcacc actggactta 100
aggaagagtg tactcgtagg cggacagctt tagtggccgg ccggccgctc 150
tcatcccccg taaggagcag agtcctttgt actgaccaag atgagcaaca 200
tctacatcca ggagcctccc acgaatggga aggttttatt gaaaactaca 250
gctggagata ttgacataga gttgtggtcc aaagaagctc ctaaagcttg 300
cagaaatfff atccaactff gtttgggaagc ttattatgac aataccatff 350
ttcatagagt tgtgcctggt ttcatagtc aaggcggaga tcctactggc 400
acagggagtg gtggagagtc tatctatgga gcgccattca aagatgaatt 450
tcattcacgg ttgcgtffta atcggagagg actgggttgc atggcaaattg 500
ctggttctca tgataatggc agccagttff tcttcacact gggtcgagca 550
gatgaactta acaataagca taccatctff ggaaaggffa caggggatac 600
agtatataac atgttgcgac tgtcagaagt agacattgat gatgacgaaa 650
gaccacataa tccacacaaa ataaaaagct gtgaggttff gtttaatcct 700
tttgatgaca tcattccaag ggaaattaaa aggctgaaaa aagagaaacc 750
agaggaggaa gtaaagaaat tgaaacccaa aggcacaaaa aatffftagtt 800
tactfftcatt tggagaggaa gctgagggaag aagaggagga agtaaatcga 850
gttagtcaga gcatgaaggg caaaagcaaa agtagtcatt acttgcttaa 900
ggatgatcca catctcagtt ctgttccagt tgtagaaagt gaaaaagggtg 950
atgcaccaga tttagttgat gatggagaag atgaaagtgc agagcatgat 1000
gaatatattg atggtgatga aaagaacctg atgagagaaa gaattgccaa 1050
aaaattaaaa aaggacacaa gtgcgaatgt taaatcagct ggagaaggag 1100

aagtggagaa gaaatcagtc agccgcagtg aagagctcag aaaagaagca 1150
agacaattaa aacgggaact cttagcagca aaacaaaaaa aagtagaaaa 1200
tgcagcaaaa caagcagaaa aaagaagtga agaggaagaa gcccctccag 1250
atggtgctgt tgccgaatac agaagagaaa agcaaaagta tgaagctttg 1300
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ctgaaaatga cattcctgaa acagaagtag aagatgatga aggatggatg 1450
tcacatgtac ttcagtttga ggataaaagc agaaaagtga aagatgcaag 1500
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agaagataaa atgagaataa tgataaccag aacttgctgg aaatgtgcct 1650
acaatggcct tgtaacagcc attgttccca acagcatcac ttaggggtgt 1700
gaaaagaagt atttttgaac ctgttgtctg gttttgaaaa acaattatct 1750
tgttttgcaa attgtggaat gatgtaagca aatgcttttg gttactggta 1800
catgtgtttt ttcctagctg acctttttata ttgctaaatc tgaataaaaa 1850
taactttcct tccacaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1894

<210> 245

<211> 472

<212> PRT

<213> Homo sapiens

<400> 245

Met	Ser	Asn	Ile	Tyr	Ile	Gln	Glu	Pro	Pro	Thr	Asn	Gly	Lys	Val
1				5					10					15
Leu	Leu	Lys	Thr	Thr	Ala	Gly	Asp	Ile	Asp	Ile	Glu	Leu	Trp	Ser
				20					25					30
Lys	Glu	Ala	Pro	Lys	Ala	Cys	Arg	Asn	Phe	Ile	Gln	Leu	Cys	Leu
				35					40					45
Glu	Ala	Tyr	Tyr	Asp	Asn	Thr	Ile	Phe	His	Arg	Val	Val	Pro	Gly
				50					55					60
Phe	Ile	Val	Gln	Gly	Gly	Asp	Pro	Thr	Gly	Thr	Gly	Ser	Gly	Gly
				65					70					75
Glu	Ser	Ile	Tyr	Gly	Ala	Pro	Phe	Lys	Asp	Glu	Phe	His	Ser	Arg
				80					85					90
Leu	Arg	Phe	Asn	Arg	Arg	Gly	Leu	Val	Ala	Met	Ala	Asn	Ala	Gly
				95					100					105

Ser	His	Asp	Asn	Gly 110	Ser	Gln	Phe	Phe	Phe 115	Thr	Leu	Gly	Arg	Ala 120
Asp	Glu	Leu	Asn	Asn 125	Lys	His	Thr	Ile	Phe 130	Gly	Lys	Val	Thr	Gly 135
Asp	Thr	Val	Tyr	Asn 140	Met	Leu	Arg	Leu	Ser 145	Glu	Val	Asp	Ile	Asp 150
Asp	Asp	Glu	Arg	Pro 155	His	Asn	Pro	His	Lys 160	Ile	Lys	Ser	Cys	Glu 165
Val	Leu	Phe	Asn	Pro 170	Phe	Asp	Asp	Ile	Ile 175	Pro	Arg	Glu	Ile	Lys 180
Arg	Leu	Lys	Lys	Glu 185	Lys	Pro	Glu	Glu	Glu 190	Val	Lys	Lys	Leu	Lys 195
Pro	Lys	Gly	Thr	Lys 200	Asn	Phe	Ser	Leu	Leu 205	Ser	Phe	Gly	Glu	Glu 210
Ala	Glu	Glu	Glu	Glu 215	Glu	Glu	Val	Asn	Arg 220	Val	Ser	Gln	Ser	Met 225
Lys	Gly	Lys	Ser	Lys 230	Ser	Ser	His	Asp	Leu 235	Leu	Lys	Asp	Asp	Pro 240
His	Leu	Ser	Ser	Val 245	Pro	Val	Val	Glu	Ser 250	Glu	Lys	Gly	Asp	Ala 255
Pro	Asp	Leu	Val	Asp 260	Asp	Gly	Glu	Asp	Glu 265	Ser	Ala	Glu	His	Asp 270
Glu	Tyr	Ile	Asp	Gly 275	Asp	Glu	Lys	Asn	Leu 280	Met	Arg	Glu	Arg	Ile 285
Ala	Lys	Lys	Leu	Lys 290	Lys	Asp	Thr	Ser	Ala 295	Asn	Val	Lys	Ser	Ala 300
Gly	Glu	Gly	Glu	Val 305	Glu	Lys	Lys	Ser	Val 310	Ser	Arg	Ser	Glu	Glu 315
Leu	Arg	Lys	Glu	Ala 320	Arg	Gln	Leu	Lys	Arg 325	Glu	Leu	Leu	Ala	Ala 330
Lys	Gln	Lys	Lys	Val 335	Glu	Asn	Ala	Ala	Lys 340	Gln	Ala	Glu	Lys	Arg 345
Ser	Glu	Glu	Glu	Glu 350	Ala	Pro	Pro	Asp	Gly 355	Ala	Val	Ala	Glu	Tyr 360
Arg	Arg	Glu	Lys	Gln 365	Lys	Tyr	Glu	Ala	Leu 370	Arg	Lys	Gln	Gln	Ser 375
Lys	Lys	Gly	Thr	Ser 380	Arg	Glu	Asp	Gln	Thr 385	Leu	Ala	Leu	Leu	Asn 390
Gln	Phe	Lys	Ser	Lys	Leu	Thr	Gln	Ala	Ile	Ala	Glu	Thr	Pro	Glu

395	400	405
Asn Asp Ile Pro Glu Thr Glu Val Glu	Asp Asp Glu Gly Trp Met	
410	415	420
Ser His Val Leu Gln Phe Glu Asp Lys	Ser Arg Lys Val Lys Asp	
425	430	435
Ala Ser Met Gln Asp Ser Asp Thr Phe	Glu Ile Tyr Asp Pro Arg	
440	445	450
Asn Pro Val Asn Lys Arg Arg Arg Glu	Glu Ser Lys Lys Leu Met	
455	460	465
Arg Glu Lys Lys Glu Arg Arg		
470		

<210> 246

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 246

tgcgagatc ctactggcac aggg 24

<210> 247

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 247

cgagttagtc agagcatg 18

<210> 248

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 248

cagatggtgc tggtgccg 18

<210> 249

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 249
caactggaac aggaactgag atgtggatc 29

<210> 250
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 250
ctggttcagc agtgcaaggg tctg 24

<210> 251
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 251
cctctccgat taaaacgc 18

<210> 252
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 252
gagaggactg gttgcatgg caaatgctgg ttctcatgat aatgg 45

<210> 253
<211> 2456
<212> DNA
<213> Homo sapiens

<400> 253
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gatgctgccc ggcccgcctc ggctttgagg cgagagaagt gtcccagacc 100
catttcgcct tgctgacggc gtcgagccct ggccagacat gtccacaggg 150
ttctccttcg ggtccgggac tctgggctcc accaccgtgg ccgcgggagg 200
gaccagcaca ggcggcggtt tctccttcgg aacgggaacg tctagcaacc 250
cttctgtggg gctcaatttt ggaaatcttg gaagtacttc aactccagca 300
actacatctg ctccttcaag tggttttgga accgggctct ttggatctaa 350
acctgccact gggttcactc taggaggaac aaatacaggt gccttgcaca 400

ccaagaggcc tcaagtggc accaaatatg gaaccctgca aggaaaacag 450
 atgcatgtgg ggaagacacc catccaagtc tttttaggag tccccttctc 500
 cagacctcct ctaggtatcc tcaggtttgc acctccagaa cccccggagc 550
 cctggaaagg aatcagagat gctaccacct acccgctgg atggagtctc 600
 gctctgtcgc caggctggag tgcagtggca cgatctcggc tcaactgcaac 650
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 ggattttacc acaagagtgg gcatgaagct caaggagaag aagatggctt 1800
 tttgatgag tctgtaccag tctcaaagac ctgagaagca gaggcaattc 1850

Pro	Glu	Pro	Trp	Lys	Gly	Ile	Arg	Asp	Ala	Thr	Thr	Tyr	Pro	Pro	
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Gly	Trp	Ser	Leu	Ala	Leu	Ser	Pro	Gly	Trp	Ser	Ala	Val	Ala	Arg	
				155					160					165	
Ser	Arg	Leu	Thr	Ala	Thr	Ser	Ala	Ser	Arg	Val	Gln	Ala	Ser	Leu	
				170					175					180	
Leu	Pro	Gln	Pro	Leu	Ser	Val	Trp	Gly	Tyr	Arg	Cys	Leu	Gln	Glu	
				185					190					195	
Ser	Trp	Gly	Gln	Leu	Ala	Ser	Met	Tyr	Val	Ser	Thr	Arg	Glu	Arg	
				200					205					210	
Tyr	Lys	Trp	Leu	Arg	Phe	Ser	Glu	Asp	Cys	Leu	Tyr	Leu	Asn	Val	
				215					220					225	
Tyr	Ala	Pro	Ala	Arg	Ala	Pro	Gly	Asp	Pro	Gln	Leu	Pro	Val	Met	
				230					235					240	
Val	Trp	Phe	Pro	Gly	Gly	Ala	Phe	Ile	Val	Gly	Ala	Ala	Ser	Ser	
				245					250					255	
Tyr	Glu	Gly	Ser	Asp	Leu	Ala	Ala	Arg	Glu	Lys	Val	Val	Leu	Val	
				260					265					270	
Phe	Leu	Gln	His	Arg	Leu	Gly	Ile	Phe	Gly	Phe	Leu	Ser	Thr	Asp	
				275					280					285	
Asp	Ser	His	Ala	Arg	Gly	Asn	Trp	Gly	Leu	Leu	Asp	Gln	Met	Ala	
				290					295					300	
Ala	Leu	Arg	Trp	Val	Gln	Glu	Asn	Ile	Ala	Ala	Phe	Gly	Gly	Asp	
				305					310					315	
Pro	Gly	Asn	Val	Thr	Leu	Phe	Gly	Gln	Ser	Ala	Gly	Ala	Met	Ser	
				320					325					330	
Ile	Ser	Gly	Leu	Met	Met	Ser	Pro	Leu	Ala	Ser	Gly	Leu	Phe	His	
				335					340					345	
Arg	Ala	Ile	Ser	Gln	Ser	Gly	Thr	Ala	Leu	Phe	Arg	Leu	Phe	Ile	
				350					355					360	
Thr	Ser	Asn	Pro	Leu	Lys	Val	Ala	Lys	Lys	Val	Ala	His	Leu	Ala	
				365					370					375	
Gly	Cys	Asn	His	Asn	Ser	Thr	Gln	Ile	Leu	Val	Asn	Cys	Leu	Arg	
				380					385					390	
Ala	Leu	Ser	Gly	Thr	Lys	Val	Met	Arg	Val	Ser	Asn	Lys	Met	Arg	
				395					400					405	
Phe	Leu	Gln	Leu	Asn	Phe	Gln	Arg	Asp	Pro	Glu	Glu	Ile	Ile	Trp	
				410					415					420	
Ser	Met	Ser	Pro	Val	Val	Asp	Gly	Val	Val	Ile	Pro	Asp	Asp	Pro	

	425		430		435
Leu Val Leu Leu Thr Gln Gly Lys Val Ser Ser Val Pro Tyr Leu					
	440		445		450
Leu Gly Val Asn Asn Leu Glu Phe Asn Trp Leu Leu Pro Tyr Asn					
	455		460		465
Ile Thr Lys Glu Gln Val Pro Leu Val Val Glu Glu Tyr Leu Asp					
	470		475		480
Asn Val Asn Glu His Asp Trp Lys Met Leu Arg Asn Arg Met Met					
	485		490		495
Asp Ile Val Gln Asp Ala Thr Phe Val Tyr Ala Thr Leu Gln Thr					
	500		505		510
Ala His Tyr His Arg Glu Thr Pro Met Met Gly Ile Cys Pro Ala					
	515		520		525
Gly His Ala Thr Thr Arg Met Lys Ser Thr Cys Ser Trp Ile Leu					
	530		535		540
Pro Gln Glu Trp Ala					
	545				

<210> 255

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 255

agggtgcctgc aggagtcctg ggg 23

<210> 256

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 256

ccacctcagg aagccgaaga tgcc 24

<210> 257

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 257

gaacgtaca agtggctgcg cttcagcgag gactgtctgt acctg 45

<210> 258
<211> 2764
<212> DNA
<213> Homo sapiens

<400> 258
gagaacaggc ctgtctcagg caggccctgc gcctcctatg cggagatgct 50
actgccactg ctgctgtcct cgctgctggg cgggtcccag gctatggatg 100
ggagattctg gatacgagtg caggagtcag tgatgggtgcc ggagggcctg 150
tgcatctctg tgccctgctc tttctcctac ccccgacaag actggacagg 200
gtctacccca gcttatggct actggttcaa agcagtgact gagacaacca 250
agggtgctcc tgtggccaca aaccaccaga gtcgagaggt ggaaatgagc 300
accgggggcc gattccagct cactggggat cccgccaagg ggaactgctc 350
cttggtgatc agagacgcgc agatgcagga tgagtcacag tacttctttc 400
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tttctaaaag taacagtgtc cagcttcacg cccagacccc aggaccacaa 500
caccgacctc acctgccatg tggacttctc cagaaagggg gtgagcgcac 550
agaggaccgt ccgactccgt gtggcctatg ccccagaga ccttgttatc 600
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tgtcccatac ctggaagccc aaaaaggcca gttcctgcgg ctctctgtg 700
ctgctgacag ccagccccct gccacactga gctgggtcct gcagaacaga 750
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 agaaataacc ataaaagtgg gcaaccagca gctctaggcg ctgctcttgt 2700
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tcaccttaaa aaaa 2764

<210> 259

<211> 544

<212> PRT

<213> Homo sapiens

<400> 259

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				20					25					30	
Val	Pro	Glu	Gly	Leu	Cys	Ile	Ser	Val	Pro	Cys	Ser	Phe	Ser	Tyr	
				35					40					45	
Pro	Arg	Gln	Asp	Trp	Thr	Gly	Ser	Thr	Pro	Ala	Tyr	Gly	Tyr	Trp	
				50					55					60	
Phe	Lys	Ala	Val	Thr	Glu	Thr	Thr	Lys	Gly	Ala	Pro	Val	Ala	Thr	
				65					70					75	
Asn	His	Gln	Ser	Arg	Glu	Val	Glu	Met	Ser	Thr	Arg	Gly	Arg	Phe	
				80					85					90	
Gln	Leu	Thr	Gly	Asp	Pro	Ala	Lys	Gly	Asn	Cys	Ser	Leu	Val	Ile	
				95					100					105	
Arg	Asp	Ala	Gln	Met	Gln	Asp	Glu	Ser	Gln	Tyr	Phe	Phe	Arg	Val	
				110					115					120	
Glu	Arg	Gly	Ser	Tyr	Val	Thr	Tyr	Asn	Phe	Met	Asn	Asp	Gly	Phe	
				125					130					135	
Phe	Leu	Lys	Val	Thr	Val	Leu	Ser	Phe	Thr	Pro	Arg	Pro	Gln	Asp	
				140					145					150	
His	Asn	Thr	Asp	Leu	Thr	Cys	His	Val	Asp	Phe	Ser	Arg	Lys	Gly	
				155					160					165	
Val	Ser	Ala	Gln	Arg	Thr	Val	Arg	Leu	Arg	Val	Ala	Tyr	Ala	Pro	
				170					175					180	
Arg	Asp	Leu	Val	Ile	Ser	Ile	Ser	Arg	Asp	Asn	Thr	Pro	Ala	Leu	
				185					190					195	
Glu	Pro	Gln	Pro	Gln	Gly	Asn	Val	Pro	Tyr	Leu	Glu	Ala	Gln	Lys	
				200					205					210	
Gly	Gln	Phe	Leu	Arg	Leu	Leu	Cys	Ala	Ala	Asp	Ser	Gln	Pro	Pro	
				215					220					225	
Ala	Thr	Leu	Ser	Trp	Val	Leu	Gln	Asn	Arg	Val	Leu	Ser	Ser	Ser	
				230					235					240	
His	Pro	Trp	Gly	Pro	Arg	Pro	Leu	Gly	Leu	Glu	Leu	Pro	Gly	Val	
				245					250					255	

Lys	Ala	Gly	Asp	Ser	Gly	Arg	Tyr	Thr	Cys	Arg	Ala	Glu	Asn	Arg	
				260					265					270	
Leu	Gly	Ser	Gln	Gln	Arg	Ala	Leu	Asp	Leu	Ser	Val	Gln	Tyr	Pro	
				275					280					285	
Pro	Glu	Asn	Leu	Arg	Val	Met	Val	Ser	Gln	Ala	Asn	Arg	Thr	Val	
				290					295					300	
Leu	Glu	Asn	Leu	Gly	Asn	Gly	Thr	Ser	Leu	Pro	Val	Leu	Glu	Gly	
				305					310					315	
Gln	Ser	Leu	Cys	Leu	Val	Cys	Val	Thr	His	Ser	Ser	Pro	Pro	Ala	
				320					325					330	
Arg	Leu	Ser	Trp	Thr	Gln	Arg	Gly	Gln	Val	Leu	Ser	Pro	Ser	Gln	
				335					340					345	
Pro	Ser	Asp	Pro	Gly	Val	Leu	Glu	Leu	Pro	Arg	Val	Gln	Val	Glu	
				350					355					360	
His	Glu	Gly	Glu	Phe	Thr	Cys	His	Ala	Arg	His	Pro	Leu	Gly	Ser	
				365					370					375	
Gln	His	Val	Ser	Leu	Ser	Leu	Ser	Val	His	Tyr	Lys	Lys	Gly	Leu	
				380					385					390	
Ile	Ser	Thr	Ala	Phe	Ser	Asn	Gly	Ala	Phe	Leu	Gly	Ile	Gly	Ile	
				395					400					405	
Thr	Ala	Leu	Leu	Phe	Leu	Cys	Leu	Ala	Leu	Ile	Ile	Met	Lys	Ile	
				410					415					420	
Leu	Pro	Lys	Arg	Arg	Thr	Gln	Thr	Glu	Thr	Pro	Arg	Pro	Arg	Phe	
				425					430					435	
Ser	Arg	His	Ser	Thr	Ile	Leu	Asp	Tyr	Ile	Asn	Val	Val	Pro	Thr	
				440					445					450	
Ala	Gly	Pro	Leu	Ala	Gln	Lys	Arg	Asn	Gln	Lys	Ala	Thr	Pro	Asn	
				455					460					465	
Ser	Pro	Arg	Thr	Pro	Pro	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Glu	Ser	
				470					475					480	
Lys	Lys	Asn	Gln	Lys	Lys	Gln	Tyr	Gln	Leu	Pro	Ser	Phe	Pro	Glu	
				485					490					495	
Pro	Lys	Ser	Ser	Thr	Gln	Ala	Pro	Glu	Ser	Gln	Glu	Ser	Gln	Glu	
				500					505					510	
Glu	Leu	His	Tyr	Ala	Thr	Leu	Asn	Phe	Pro	Gly	Val	Arg	Pro	Arg	
				515					520					525	
Pro	Glu	Ala	Arg	Met	Pro	Lys	Gly	Thr	Gln	Ala	Asp	Tyr	Ala	Glu	
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<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<211> 24
<212> DNA
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<220>
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<400> 261
ttctggagcc cagaggggtgc tgag 24

<210> 262
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 262
ggagctgccca cccattcaaa tggagcacga aggagagttc acctg 45

<210> 263
<211> 2857
<212> DNA
<213> Homo sapiens

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actgctgctg tttatgttgg gaattcctct cctatggcct tgtcttggag 100
caacagaaaa ctctcaaaca aagaaagtca agcagccagt gcgatctcat 150
ttgagagtga agcgtggctg ggtgtggaac caattttttg taccagagga 200
aatgaatacg actagtcac acatcggcca gctaagatct gatttagaca 250
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tgatagagag gagegatccc tctacatctt aagagcccag gtaatagaca 400
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gaaaacagat tctatttcct gagaaaagtg aagatttcag agagaatata 1950
 ttccaatatg atgatgaagg ggggtggagaa gaagatacag aggcctttga 2000
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 ggccccgaca gtgccatatt caggaaattc attctggaaa agctcgaaga 2150
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 aatgtaggaa gatattaaaa gtagatgaga ggacacaaga tgtagtcgat 2650
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 atcgagataa catttacatt totatcatat tgacatgaaa attgaaaatg 2800
 tatagtcaga gaaattttca tgaattattc catgaagtat tgtttccttt 2850
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<210> 264

<211> 772

<212> PRT

<213> Homo sapiens

<400> 264

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Leu	Trp	Pro	Cys	Leu	Gly	Ala	Thr	Glu	Asn	Ser	Gln	Thr	Lys	Lys
				20					25					30

Val	Lys	Gln	Pro	Val	Arg	Ser	His	Leu	Arg	Val	Lys	Arg	Gly	Trp
				35					40					45

Val	Trp	Asn	Gln	Phe	Phe	Val	Pro	Glu	Glu	Met	Asn	Thr	Thr	Ser
				50					55					60

His	His	Ile	Gly	Gln 65	Leu	Arg	Ser	Asp	Leu 70	Asp	Asn	Gly	Asn	Asn 75
Ser	Phe	Gln	Tyr	Lys 80	Leu	Leu	Gly	Ala	Gly 85	Ala	Gly	Ser	Thr	Phe 90
Ile	Ile	Asp	Glu	Arg 95	Thr	Gly	Asp	Ile	Tyr 100	Ala	Ile	Gln	Lys	Leu 105
Asp	Arg	Glu	Glu	Arg 110	Ser	Leu	Tyr	Ile	Leu 115	Arg	Ala	Gln	Val	Ile 120
Asp	Ile	Ala	Thr	Gly 125	Arg	Ala	Val	Glu	Pro 130	Glu	Ser	Glu	Phe	Val 135
Ile	Lys	Val	Ser	Asp 140	Ile	Asn	Asp	Asn	Glu 145	Pro	Lys	Phe	Leu	Asp 150
Glu	Pro	Tyr	Glu	Ala 155	Ile	Val	Pro	Glu	Met 160	Ser	Pro	Glu	Gly	Thr 165
Leu	Val	Ile	Gln	Val 170	Thr	Ala	Ser	Asp	Ala 175	Asp	Asp	Pro	Ser	Ser 180
Gly	Asn	Asn	Ala	Arg 185	Leu	Leu	Tyr	Ser	Leu 190	Leu	Gln	Gly	Gln	Pro 195
Tyr	Phe	Ser	Val	Glu 200	Pro	Thr	Thr	Gly	Val 205	Ile	Arg	Ile	Ser	Ser 210
Lys	Met	Asp	Arg	Glu 215	Leu	Gln	Asp	Glu	Tyr 220	Trp	Val	Ile	Ile	Gln 225
Ala	Lys	Asp	Met	Ile 230	Gly	Gln	Pro	Gly	Ala 235	Leu	Ser	Gly	Thr	Thr 240
Ser	Val	Leu	Ile	Lys 245	Leu	Ser	Asp	Val	Asn 250	Asp	Asn	Lys	Pro	Ile 255
Phe	Lys	Glu	Ser	Leu 260	Tyr	Arg	Leu	Thr	Val 265	Ser	Glu	Ser	Ala	Pro 270
Thr	Gly	Thr	Ser	Ile 275	Gly	Thr	Ile	Met	Ala 280	Tyr	Asp	Asn	Asp	Ile 285
Gly	Glu	Asn	Ala	Glu 290	Met	Asp	Tyr	Ser	Ile 295	Glu	Glu	Asp	Asp	Ser 300
Gln	Thr	Phe	Asp	Ile 305	Ile	Thr	Asn	His	Glu 310	Thr	Gln	Glu	Gly	Ile 315
Val	Ile	Leu	Lys	Lys 320	Lys	Val	Asp	Phe	Glu 325	His	Gln	Asn	His	Tyr 330
Gly	Ile	Arg	Ala	Lys 335	Val	Lys	Asn	His	His 340	Val	Pro	Glu	Gln	Leu 345
Met	Lys	Tyr	His	Thr	Glu	Ala	Ser	Thr	Thr	Phe	Ile	Lys	Ile	Gln

350	355	360
Val Glu Asp Val Asp Glu Pro Pro Leu Phe Leu Leu Pro Tyr Tyr	370	375
365		
Val Phe Glu Val Phe Glu Glu Thr Pro Gln Gly Ser Phe Val Gly	385	390
380		
Val Val Ser Ala Thr Asp Pro Asp Asn Arg Lys Ser Pro Ile Arg	400	405
395		
Tyr Ser Ile Thr Arg Ser Lys Val Phe Asn Ile Asn Asp Asn Gly	415	420
410		
Thr Ile Thr Thr Ser Asn Ser Leu Asp Arg Glu Ile Ser Ala Trp	430	435
425		
Tyr Asn Leu Ser Ile Thr Ala Thr Glu Lys Tyr Asn Ile Glu Gln	445	450
440		
Ile Ser Ser Ile Pro Leu Tyr Val Gln Val Leu Asn Ile Asn Asp	460	465
455		
His Ala Pro Glu Phe Ser Gln Tyr Tyr Glu Thr Tyr Val Cys Glu	475	480
470		
Asn Ala Gly Ser Gly Gln Val Ile Gln Thr Ile Ser Ala Val Asp	490	495
485		
Arg Asp Glu Ser Ile Glu Glu His His Phe Tyr Phe Asn Leu Ser	505	510
500		
Val Glu Asp Thr Asn Asn Ser Ser Phe Thr Ile Ile Asp Asn Gln	520	525
515		
Asp Asn Thr Ala Val Ile Leu Thr Asn Arg Thr Gly Phe Asn Leu	535	540
530		
Gln Glu Glu Pro Val Phe Tyr Ile Ser Ile Leu Ile Ala Asp Asn	550	555
545		
Gly Ile Pro Ser Leu Thr Ser Thr Asn Thr Leu Thr Ile His Val	565	570
560		
Cys Asp Cys Gly Asp Ser Gly Ser Thr Gln Thr Cys Gln Tyr Gln	580	585
575		
Glu Leu Val Leu Ser Met Gly Phe Lys Thr Glu Val Ile Ile Ala	595	600
590		
Ile Leu Ile Cys Ile Met Ile Ile Phe Gly Phe Ile Phe Leu Thr	610	615
605		
Leu Gly Leu Lys Gln Arg Arg Lys Gln Ile Leu Phe Pro Glu Lys	625	630
620		
Ser Glu Asp Phe Arg Glu Asn Ile Phe Gln Tyr Asp Asp Glu Gly	640	645
635		

Gly	Gly	Glu	Glu	Asp	Thr	Glu	Ala	Phe	Asp	Ile	Ala	Glu	Leu	Arg
				650					655					660
Ser	Ser	Thr	Ile	Met	Arg	Glu	Arg	Lys	Thr	Arg	Lys	Thr	Thr	Ser
				665					670					675
Ala	Glu	Ile	Arg	Ser	Leu	Tyr	Arg	Gln	Ser	Leu	Gln	Val	Gly	Pro
				680					685					690
Asp	Ser	Ala	Ile	Phe	Arg	Lys	Phe	Ile	Leu	Glu	Lys	Leu	Glu	Glu
				695					700					705
Ala	Asn	Thr	Asp	Pro	Cys	Ala	Pro	Pro	Phe	Asp	Ser	Leu	Gln	Thr
				710					715					720
Tyr	Ala	Phe	Glu	Gly	Thr	Gly	Ser	Leu	Ala	Gly	Ser	Leu	Ser	Ser
				725					730					735
Leu	Glu	Ser	Ala	Val	Ser	Asp	Gln	Asp	Glu	Ser	Tyr	Asp	Tyr	Leu
				740					745					750
Asn	Glu	Leu	Gly	Pro	Arg	Phe	Lys	Arg	Leu	Ala	Cys	Met	Phe	Gly
				755					760					765
Ser	Ala	Val	Gln	Ser	Asn	Asn								
				770										

<210> 265
 <211> 349
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 24, 60, 141, 226, 228, 249, 252
 <223> unknown base

<400> 265
 atttcaaggc cagccatatt tttntgttga accaacaaca ggagtcataa 50
 gaatatatttn taaaatggat agagaactgc aagatgagta ttgggtaatc 100
 attcaagcca aggacatgat tggtcagcca ggagcgttgt ntggaacaac 150
 aagtgtatta attaaacttt cagatgttaa tgacaataag cctatattta 200
 aagaaagttt ataccgcttg actgtntntg aatctgcacc cactgggant 250
 tntataggaa caatcatggc atatgataat gacataggag agaatgcaga 300
 aatggattac agcattgaag aggatgattc gcaaacattt gacattatt 349

<210> 266
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 266
 cttgactgtc tctgaatctg cacc 25

<210> 267

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 267
 aagtgtgga agcctccagt gtgg 24

<210> 268

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 268
 ccactacggt attagagcaa aagttaaaaa ccatcatggt tcctggagca 50
 gc 52

<210> 269

<211> 2747

<212> DNA

<213> Homo sapiens

<400> 269
 gcaacctcag cttctagtat ccagactcca gcgcgcggc gggcgaggac 50
 cccaaccccg acccagagct tctccagcgg cggcgagcgg agcaggggtc 100
 ccgccttaa cttcctccgc ggggccagc caccttcggg agtccgggtt 150
 gcccacctgc aaactctccg ctttctgcac ctgccacccc tgagccagcg 200
 cgggcccccg agcgagtcac ggccaacggc gggctgcagc tgttgggctt 250
 cattctgcc ttctgggat ggatcggcgc catcgtcagc actgccctgc 300
 cccagtggag gatttactcc tatgccggcg acaacatcgt gaccgcccag 350
 gccatgtacg aggggctgtg gatgtcctgc gtgtcgcaga gcaccgggca 400
 gatccagtgc aaagtctttg actccttgct gaatctgagc agcacattgc 450
 aagcaacccg tgccttgatg gtggttgga tcctcctggg agtgatagca 500
 atctttgtgg ccaccgttgg catgaagtgt atgaagtgt tggaagacga 550
 tgaggtgcag aagatgagga tggctgtcat tgggggtgcg atatttcttc 600


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tttatattac tcttattctt tgaacatgaa ctatgcctat gtagtgtctt 2100
tatttgctca gctggctgag aactgaaga agtcactgaa caaaacctac 2150
acacgtacct tcatgtgatt cactgccttc ctctctctac cagtctattt 2200
ccactgaaca aaacctacac acataccttc atgtggttca gtgccttcct 2250
ctctctacca gtctatttcc actgaacaaa acctacgcac ataccttcat 2300
gtggctcagt gccttcctct ctctaccagt ctatttccat tctttcagct 2350
gtgtctgaca tgtttggtgt ctgttccatt ttaacaactg ctcttacttt 2400
tccagtctgt acagaatgct atttcacttg agcaagatga tgtaatggaa 2450
agggtggttg cactggtgtc tggagacctg gatttgagtc ttggtgctat 2500
caatcacctg ctgtgtttga gcaaggcatt tggctgctgt aagcttattg 2550
cttcatctgt aagcgggtgg ttgtaattcc tgatcttccc acctcacagt 2600
gatgttggtg ggatccagtg agatagaata catgtaagtg tggttttgta 2650
atttaaaaag tgctatacta agggaaagaa ttgaggaatt aactgcatac 2700
gttttggtgt tgcttttcaa atgtttgaaa ataaaaaaaaa tgttaag 2747

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<210> 270
<211> 211
<212> PRT
<213> Homo sapiens

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<400> 270
Met Ala Asn Ala Gly Leu Gln Leu Leu Gly Phe Ile Leu Ala Phe
  1              5              10              15
Leu Gly Trp Ile Gly Ala Ile Val Ser Thr Ala Leu Pro Gln Trp
              20              25              30
Arg Ile Tyr Ser Tyr Ala Gly Asp Asn Ile Val Thr Ala Gln Ala
              35              40              45
Met Tyr Glu Gly Leu Trp Met Ser Cys Val Ser Gln Ser Thr Gly
              50              55              60
Gln Ile Gln Cys Lys Val Phe Asp Ser Leu Leu Asn Leu Ser Ser
              65              70              75
Thr Leu Gln Ala Thr Arg Ala Leu Met Val Val Gly Ile Leu Leu
              80              85              90
Gly Val Ile Ala Ile Phe Val Ala Thr Val Gly Met Lys Cys Met
              95              100             105
Lys Cys Leu Glu Asp Asp Glu Val Gln Lys Met Arg Met Ala Val
              110             115             120

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Ile Gly Gly Ala	Ile Phe Leu Leu Ala Gly Leu Ala Ile Leu Val	
	125	130 135
Ala Thr Ala Trp Tyr Gly Asn Arg Ile Val Gln Glu Phe Tyr Asp		
	140	145 150
Pro Met Thr Pro Val Asn Ala Arg Tyr Glu Phe Gly Gln Ala Leu		
	155	160 165
Phe Thr Gly Trp Ala Ala Ala Ser Leu Cys Leu Leu Gly Gly Ala		
	170	175 180
Leu Leu Cys Cys Ser Cys Pro Arg Lys Thr Thr Ser Tyr Pro Thr		
	185	190 195
Pro Arg Pro Tyr Pro Lys Pro Ala Pro Ser Ser Gly Lys Asp Tyr		
	200	205 210

Val

<210> 271
 <211> 564
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 21, 69, 163, 434, 436, 444
 <223> unknown base

<400> 271
 ttctggccaa acccggggct ncagctgttg ggcttcatct cgccttcctg 50
 ggatggatcg gcgccatcnt cacactgccc ttcccagtg gaggatttta 100
 ctccctatgc tggcgacaac atcgtgaccg cccagcccat gtacgagggg 150
 ctgtggatgt ccngcgtgtc gcagagcacc gggcagatcc agtgcaaagt 200
 ctttgactcc ttgctgaatc tgagcagcac attgcaagca acccgtgcct 250
 tgatggtggt tggcatcctc ctgggagtga tagcaatctt tgtggccacc 300
 gttggcatga agtgtatgaa gtgcttgga gacgatgagg tgcagaagat 350
 gaggatggct gtcattgggg gcgcgatatt tcttcttgca ggtctggcta 400
 ttttagttgc cacagcatgg tatggcaata gaanonttca acantttctat 450
 gaccctatga cccagtcaa tgccaggtag gaatttggtc aggctctctt 500
 cactggctgg gctgctgctt ctctctgcct tctgggaggt gccctacttt 550
 gctgttctctg tccc 564

<210> 272
 <211> 498

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 30, 49, 102, 141, 147, 171, 324-325, 339-341
<223> unknown base

<400> 272
acccttgacc caacgcggcc ccccgaccgn ttcattggcca aacgcgggnc 50
tocagctgtt gggcttcatt ctccccttcc tgggatggac cggcgcccat 100
cntcagcaact gccctgcccc agtggaggat ttactcctat nccggcnaca 150
acatcgtgac cgcccaggcc ntgtacgagg ggctgtggat gtcctgcgtg 200
tgcagagca ccgggcagat ccagtcaaaa gtctttgact cccttgctga 250
atctgagcag cacattgcaa gcaacccgtg ccttgatggt ggttggcatc 300
ctcctgggag tgatagcaat cttnttggcc accgttgtnn ntgaagtga 350
tgaagtgcctt ggaagacgat gaggtgcaga agatgaggat ggctgtcatt 400
gggggcgcga tatttcttct tgcaggctctg gctatttttag ttgccacagc 450
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccga 498

<210> 273
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 25, 57, 67, 94-95, 116, 152, 165, 212, 233, 392-394
<223> unknown base

<400> 273
gggcccagacc attatccaac cgggntcact gttggetcat ctccctcctg 50
gatgaanccg gccatcntca gactccctgc cccatggaga tttnnccat 100
gctggcgaca acatcntgac cccagccat gtaogagggg ctttgaacgt 150
cngcgtgtcg cagancaccg ggcagatcca gtgcaaagtc tttgactcct 200
tgctgaatct gngcagcaca ttgcagcaac ccntgccctg atggtggttg 250
gcatcctcct gggagtgata gcaatctttg tggccaccgt tggcatgaag 300
tgtatgaagt gcttggaaga cgatgaggtg cagaagatga ggatggctgt 350
cattgggggc gcgatatttc ttcttgacag tctggctatt tnnngttgcc 400
acagcatggt atggcaatag aatcgttcaa gaattctatg accctatgac 450

cccagtcaat gccaggtagc aatttgggtca ggctctcttc actgggtggg 500
 ctgctgcttc tctctgcctt ctgggaggtg ccctactttg ctgttcctgc 550
 ga 552

<210> 274
 <211> 526
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 25, 50, 60, 123, 127, 370, 395, 397-398, 402-403, 405-407
 <223> unknown base

<400> 274
 attctccct cctggatgga tgcncacc gtcacattgc cttccccan 50
 tggaggattn actcctatgc tggcgacaac atcgtgaccc cccaggccat 100
 ttaccgaggg gctttggatg tcntgcntgt cgcagagcac cgggcagatc 150
 ccagtgcaaa gtctttgact ccttgctgaa tctgagcagc acattgcaag 200
 caaccctgctg cttgatgggg ttggcatcct cctgggagtg atagcaacct 250
 ttgtggccac cggtggcatg aagtgtatga agtgcttgga agacgatgag 300
 gtgccagaag atgaggatgg ctgtcattgg gggcgcgata tttcttggtg 350
 caggctctggc tatttttagtn gccacagcat ggtatggcaa tagantnntt 400
 cnnnnntct atgacctat gacccagtc aatgccaggt acgaatttg 450
 tcaggctctc ttcactggct gggctgctgc ttctctctgc cttctgggag 500
 gtgccctact ttgctgttcc tgtccc 526

<210> 275
 <211> 398
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 22, 61, 91, 144, 238-239, 262, 265-266, 271, 274
 <223> unknown base

<400> 275
 agagcaccgg cagatcccag tncaaagtct ttgacccttg ctgaatctga 50
 gcagcacatt ncaagcaacc ccttgccctg aaggtgggtg ncatcccccc 100
 tgggagtga tagcaatctt tgtggccacc gttggcatga agtntatgaa 150
 gtgcttgga gacgatgagg tgcagaagat gaggatggct gtcattgggg 200

gcgcgatatt tcttcttgca ggtctggcta ttttagtnnc cacagcatgg 250
 tatggcaata gnatnnttcg nggnttctat gaccctatga cccagtcaa 300
 tgccaggtag gaatttggtc aggctctctt cactggctgg gctgctgctt 350
 ctctctgcct tctgggaggt gccctacttt gctgttcctg tccccgaa 398

<210> 276
 <211> 495
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 39, 58, 130, 234, 314, 364, 427, 450, 461, 476
 <223> unknown base

<400> 276
 agcaatgccc tgccccaggt ggaggattaa ttcctatgnt ggggacaaca 50
 ttgtgacngc ccaggccatg tacggggggc tgtggatgtc ctgcgtgtcg 100
 cagagcaccg ggcagatcca gtgcaaagtn tttgactcct tgctgaattt 150
 gagcagcaca ttgcaagcaa cccgtgcctt gatgggtggtt ggcattcttc 200
 tgggagtgat agcaatcttt gtggccaccg tggnaatgaa gtgtatgaag 250
 tgcttggaag acgatgaggt gcagaagatg aggatggctg tcattggggg 300
 cgcgatattt cttnttgag gtctggctat tttagtggc acagcatggt 350
 atggcaatag aatngttcaa gaattttatg accctatgac cccagtcaat 400
 gccaggtagc aatttggtca ggctttnttc actggctggg ctgctgcttn 450
 tttctgcctt ntgggaggtg ccctantttg ctgttcctgc gaacc 495

<210> 277
 <211> 200
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 34, 87, 138, 147, 163, 165-166, 172
 <223> unknown base

<400> 277
 tcataggggg gcgcgatatt ttttcttgca ggtntggta ttttagttgc 50
 cacagcatgg tatggcaata gaatcggtca agaattntat gaccctatga 100
 cccagtcaa tgccaggtag gaatttggtc aggctctntt cactggntgg 150
 gctgctgctt ctntnngcct tntgggaggt gccctacttt gctgttcctg 200

<210> 278
<211> 542
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 26, 43, 55, 77, 198, 361-362, 391-392, 396
<223> unknown base

<400> 278
ttcctgggat ggatccgccc ccatcntcac atgccctgcc cnttgagat 50
ttacncctat gctggcgaac aacatcntga ccgccaggc catgtacgag 100
gggctgtgga atgtcctgcg tgtcccagag caccgggcag atccagtgc 150
aagtctttga ctcttgctg aatctgagca gcacattgca agcaacntg 200
ccttgatggt ggttggcatc ctctgggag tgatagcaat ctttgtggcc 250
accgttggca tgaagtgtg tgaagtgtt ggaagacgat gaggtgcaga 300
agatgaggat ggctgtcatt gggggcgca tatttcttct tgcaggctctg 350
gctattttag nngccacagc atggtatggc aatcagacc nntcanaaac 400
tctatgaccc tatgacccca gtcaatgcca ggtacgaatt tggtcaggct 450
ctcttcaactg gctgggctgc tgcttctctc tgcttctgg gaggtgccct 500
actttgctgt tctgtcccc gaaaaacaac ctcttacca cg 542

<210> 279
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 90, 115, 147, 228, 387
<223> unknown base

<400> 279
cggggctgca gctgttgggc ttcattctgc ttcctgggat ggaatcggcg 50
ccatcgtcag cactgccctg ccccatggag gatttactcn tatgctggcg 100
acaacatcgt gaccncccag gccatgtacg aggggctgtg gatgtcngcg 150
tgtcgcagag caccgggcag atccagtgc aagtctttga ctcttgctg 200
aatctgagca gcacattgca agcaacntg ccttgatggt ggttggcatc 250
ctctgggag tgatagcaat ctttgtggcc accgttggca tgaagtgtat 300
gaagtgttg gaagacgatg aggtgcagaa gatgaggatg gctgtcattg 350

ggggcgcgat atttcttctt gcaggtctgg ctatttntag ttgccacagc 400
 atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccccag 450
 tcaatgccag gtacgaattt ggtcaggctc tcttcaactgg ctgggctgct 500
 gcttctctct gccttctggg aggtgcccta ctttgcgtgt cctgcgaa 548

<210> 280
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 280
 cgagcgagtc atggccaacg c 21

<210> 281
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 281
 gtgtcacacg tagtctttcc cgctgg 26

<210> 282
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 282
 ctgcagctgt tgggcttcat tctcgccttc ctgggatgga tcg 43

<210> 283
 <211> 2285
 <212> DNA
 <213> Homo sapiens

<400> 283
 gcgtgccgtc agctcgccgg gcaccgcggc ctgcacctcg ccctccgccc 50
 ctgcgcctgc accgcgtaga ccgaccccc cctccagcgc gccacccgg 100
 tagaggaccc ccgcccgtgc ccgaccggc cccgccttt ttgtaaaact 150
 taaagcgggc gcagcattaa cgcttcccgc cccggtgacc tctcaggggt 200
 ctccccgcca aagggtgtcc gccgctaagg aacatggcga aggtggagca 250
 ggtcctgagc ctgcagccgc agcacgagct caaattccga ggtcccttca 300

ctctgttggg tgaactggta ttgctgctgg agggctgtgg gctcctctgt 1800
ctctggagag tctggatcatg tggaggtggg gtttattggg atgctggaga 1850
agagctgcca ggaagtgttt tttctgggtc agtaaataac aactgtcata 1900
gggagggaaa ttctcagtag tgacagtcaa ctctagggtta ccttttttaa 1950
tgaagagtag tcagtottct agattgttct tataccacct ctcaaccatt 2000
actcacactt ccagcgccca ggtccaagtc tgagcctgac ctccccttgg 2050
ggacctagcc tggagtcagg acaaatggat cgggctgcag agggttagaa 2100
gcgagggcac cagcagttgt ggggtggggag caaggaaga gagaaactct 2150
tcagcgaatc cttotagtag tagttgagag ttgactgtg aattaatttt 2200
atgccataaa agaccaaccc agttctgttt gactatgtag catcttgaaa 2250
agaaaaatta taataaagcc ccaaaattaa gaaaa 2285

<210> 284

<211> 243

<212> PRT

<213> Homo sapiens

<400> 284

Met	Ala	Lys	Val	Glu	Gln	Val	Leu	Ser	Leu	Glu	Pro	Gln	His	Glu
1				5					10					15
Leu	Lys	Phe	Arg	Gly	Pro	Phe	Thr	Asp	Val	Val	Thr	Thr	Asn	Leu
				20					25					30
Lys	Leu	Gly	Asn	Pro	Thr	Asp	Arg	Asn	Val	Cys	Phe	Lys	Val	Lys
				35					40					45
Thr	Thr	Ala	Pro	Arg	Arg	Tyr	Cys	Val	Arg	Pro	Asn	Ser	Gly	Ile
				50					55					60
Ile	Asp	Ala	Gly	Ala	Ser	Ile	Asn	Val	Ser	Val	Met	Leu	Gln	Pro
				65					70					75
Phe	Asp	Tyr	Asp	Pro	Asn	Glu	Lys	Ser	Lys	His	Lys	Phe	Met	Val
				80					85					90
Gln	Ser	Met	Phe	Ala	Pro	Thr	Asp	Thr	Ser	Asp	Met	Glu	Ala	Val
				95					100					105
Trp	Lys	Glu	Ala	Lys	Pro	Glu	Asp	Leu	Met	Asp	Ser	Lys	Leu	Arg
				110					115					120
Cys	Val	Phe	Glu	Leu	Pro	Ala	Glu	Asn	Asp	Lys	Pro	His	Asp	Val
				125					130					135
Glu	Ile	Asn	Lys	Ile	Ile	Ser	Thr	Thr	Ala	Ser	Lys	Thr	Glu	Thr
				140					145					150

Pro	Ile	Val	Ser	Lys	Ser	Leu	Ser	Ser	Ser	Leu	Asp	Asp	Thr	Glu
				155					160					165
Val	Lys	Lys	Val	Met	Glu	Glu	Cys	Lys	Arg	Leu	Gln	Gly	Glu	Val
				170					175					180
Gln	Arg	Leu	Arg	Glu	Glu	Asn	Lys	Gln	Phe	Lys	Glu	Glu	Asp	Gly
				185					190					195
Leu	Arg	Met	Arg	Lys	Thr	Val	Gln	Ser	Asn	Ser	Pro	Ile	Ser	Ala
				200					205					210
Leu	Ala	Pro	Thr	Gly	Lys	Glu	Glu	Gly	Leu	Ser	Thr	Arg	Leu	Leu
				215					220					225
Ala	Leu	Val	Val	Leu	Phe	Phe	Ile	Val	Gly	Val	Ile	Ile	Gly	Lys
				230					235					240

Ile Ala Leu

<210> 285
 <211> 418
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 40, 53, 68, 119, 134, 177-178, 255
 <223> unknown base

<400> 285
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 tcnagcgccc aggtccangt ctgagcctga cttccccttg gggacctagc 100
 ctggagtcag gacaatggnt cgggctgcag aggnntagaa gcgagggcac 150
 cagcagtttt ggggtggggag caagggngga gagaaactct tcagcgaatc 200
 cttctagtag tagttgagag tttgactgtg aattaatttt atgccataaa 250
 agacnaaccc agttctgttt gactatgtag catcttgaaa agaaaaatta 300
 taataaagcc ccaaaattaa gaattctttt gtcattttgt cacatttgct 350
 ctatgggggg aattattatt ttatcatttt tattattttg ccattggaag 400
 gttaacttta aaatgagc 418

<210> 286
 <211> 543
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 73, 97

<223> unknown base

<400> 286

tattgttaaag gccattttaa accattggta ggcccttggtg catgatgctg 50
gattacctcc ttaaatgaca ccnttcctcg cctgttggtg ctggccnttg 100
gggagctgga gccccagcat gctggggagt gcggtcagct ccacacagta 150
gtccccacgt ggcccactcc cggcccaggc tgctttccgt gtcttcagtt 200
ctgtccaagc catcagctcc ttgggactga tgaacagagt cagaagccca 250
aaggaattgc cactgtggca gcatcagacg tactcgtcac aagtgagagg 300
cgtgtgttga ctgattgacc cagcgctttg gaaataaatg gcagtgcctt 350
gttcacttaa agggaccaag cttaaattga ttggttcatg tagtgaagtc 400
aaactgttat tcagagatgt ttaatgcata ttaacttat ttaatgtatt 450
tcattctcatg ttttcttatt gtcacaagag tacagttaat gctgcgtgct 500
gctgaactct gttgggtgaa ctggtattgc tgctggaggg ctg 543

<210> 287

<211> 270

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 38, 64, 72, 164, 198, 200, 220, 222, 229, 242

<223> unknown base

<400> 287

ccctggtggt tttgttcttt aattcggttg tgtaattntt gggaagattg 50
cttgtagagg tagnatgcac cnggctggta aattggattg gtggatccac 100
catatccatg ggattttaaat ttatcataac catgtgtaaa aagaaattaa 150
tgtatgatga catntcacag gtattgcctt taaattaccc atccctgnan 200
acacatacac agatacacan anacaaatnt aatgtaacga tnttttagaa 250
agttaaaaat gtatagtaac 270

<210> 288

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 35, 116, 129, 197, 278, 294, 297, 349, 351

<223> unknown base

<400> 288
 ggtggcccat tcccgccca ggctgctttc cggtnntcag ttctgtccaa 50
 gccatcagct ccttgggact gatgaacaga gtcagaagcc caaaggaatt 100
 gcactgtggc agcatnagac gtacttgtna taagtgagag gcgtgtgttg 150
 actgattgac ccagcgcttt ggaaataaat ggcagtgcct tgttcantta 200
 aagggaccaa gctaaatttg tattggttca tgtagtgaag tcaaactgtt 250
 attcagagat gtttaatgca tatttaantt atttaatgta tttnatntca 300
 tgttttctta ttgtcacaag agtacagtta atgctgcgtg ctgctgaant 350
 ntgttggtg aactggtatt gctgctggag ggctgtgggc tcctctgtct 400
 ttggagagtc tggcatgtg gaggtggg 428

<210> 289
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 289
 tgctttccgt gtcttcagtt ctgtccaagc catcagctcc ttgggacttg 50
 atgaacagag tcagaagccc aaaggaattg cactgtggca gcatcagacg 100
 tactcgatcat aagtgaagagg cgtgtgttga ctgattgacc cagcgctttg 150
 gaaataaatg gcagtgcctt gttcacttaa agggaccaag ctaaatttgt 200
 attggttcat gtagtgaagt caaactgtta ttcagagatg tttaatgcat 250
 atttaactta tttaatgtat ttcattctcat gttttcttat tgtcacaaga 300
 gtacagttaa tgctgcgtgc 320

<210> 290
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 57, 60, 186, 235, 244, 304, 339, 355, 359, 361, 387, 432, 441,
 447, 481, 513, 532, 584, 598
 <223> unknown base

<400> 290
 aaacctttaa aagttgaggg gaaaagaatg atcctttatt aatgacaagg 50
 gaaaccntgn gtaatgccac aatggcatat tgtaaagtgc attttaaaca 100
 ttggtaggcc ttggtacatg atgctggatt acctctctta aatgacacc 150
 cttcctcgcc tgttggtgct ggcccttggg gagctngagc ccagcatgct 200

ggggagtgcg gtctgctcca cacagtagtc cccangtggc ccantcccgg 250
 cccaggctgc tttccgtgtc ttcagttctg tccaagccat cagctccttg 300
 ggantgatga acagagtcag aagcccaaag gaattgcant gtggcagcat 350
 cagangtant ngtcataagt gagaggcgtg tgttgantga ttgaccagc 400
 gctttgaaa taaatggcag tgctttgttc anttaaagg nccaagntaa 450
 atttgtattg gttcatgtag tgaagtcaaa ntgttattca gagatgttta 500
 atgcatattt aanttattta atgtatttca tntcatgttt tottattgtc 550
 acaagggtac agttaatgct gcgtgctgct gaantctgtt ggggtgaantg 600
 gtattgctg 609

<210> 291
 <211> 493
 <212> DNA
 <213> Homo sapiens

<400> 291
 gggccttggg gagctggagc ccagcatgct ggggagtgcg gtcagctcca 50
 cacagtagtc cccacgtggc ccactcccgg cccaggctgc tttccgtgtc 100
 ttcagttctg tccaagccat cagctccttg ggactgatga acagagtcag 150
 aagcccaaag gaattgcact gtggcagcat cagacgtact cgtcataagt 200
 gagaggcgtg tgttgactga ttgaccagc gctttgaaa taaatggcag 250
 tgctttgttc acttaaagg accaagctaa atttgtattg gttcatgtag 300
 tgaagtcaaa ctgttattca gagatgttta atgcatattt aacttattta 350
 atgtatttca tctcatgttt tcttattgtc acaagagtac agttaatgct 400
 gcgtgctgct gaactctgtt ggggtgaactg gtattgctgc tggagggctg 450
 tgggctcctc tgtctctgga gactctggc atgtggaggt ggg 493

<210> 292
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 292
 gcaccaccgt aggtacttgt gtgaggc 27

<210> 293
 <211> 23
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 293

aaccaccaga gccaaagagcc ggg 23

<210> 294

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 294

cagcggaatc atcgatgcag gggcctcaat taatgtatct gtgatgttac 50

<210> 295

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 295

gcgagctccg ggtgctgtgg cccggccttg gcggggcggc ctccggctca 50

ggctggctga gaggctccca gctgcagcgt ccccgccgc ctctcgga 100

gctctgatct cagctgacag tgccctcggg gaccaaaca gcctggcagg 150

gtctcacttt gttgccagg ctggagtca gtgcatgat catggtttac 200

tgcagccttg acctctggg ttcaagcga cctgctgagt agctgggact 250

acaggacaaa attagaagat caaatggaa aatatgctgc tttggttgat 300

atttttcacc cctgggtgga ccctcattga tggatctgaa atggaatggg 350

attttatgtg gcacttgaga aaggtacccc ggattgtcag tgaaaggact 400

ttccatctca ccagccccgc atttgaggca gatgctaaga tgatggtaaa 450

tacagtgtgt ggcacgaat gccagaaaga actcccaact ccagccttt 500

ctgaattgga ggattatctt tcctatgaga ctgtctttga gaatggcacc 550

cgaaccttaa ccagggtgaa agttcaagat ttggttcttg agccgactca 600

aaatatcacc acaaaggag tatctgttag gagaaagaga cagggtgtatg 650

gcaccgacag caggttcagc atcttgga aaaggttctt aaccaatttc 700

cctttcagca cagctgtgaa gctttccacg ggctgtagtg gcattctcat 750

ttcccctcag catgttctaa ctgctgccca ctgtgttcat gatggaaagg 800

actatgtcaa agggagtaaa aagctaagg tagggttgtt gaagatgagg 850

aataaaagtg gaggaagaa acgtcgaggt tctaagagga gcaggagaga 900
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cctagtttag aaatagggaa gctgagacat tttagatct caagttttta 2250
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cttcacaaat tatgaatgat catgtgttga aagccacatt attttatgct 2350
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 tctttttcaa gaaagagtct ttttctcctt gacaaaatcc agcttttgta 2450
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 cctaaaaatg aataaaattt atgaatatga 2530

<210> 296
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 296
 Met Glu Asn Met Leu Leu Trp Leu Ile Phe Phe Thr Pro Gly Trp
 1 5 10 15
 Thr Leu Ile Asp Gly Ser Glu Met Glu Trp Asp Phe Met Trp His
 20 25 30
 Leu Arg Lys Val Pro Arg Ile Val Ser Glu Arg Thr Phe His Leu
 35 40 45
 Thr Ser Pro Ala Phe Glu Ala Asp Ala Lys Met Met Val Asn Thr
 50 55 60
 Val Cys Gly Ile Glu Cys Gln Lys Glu Leu Pro Thr Pro Ser Leu
 65 70 75
 Ser Glu Leu Glu Asp Tyr Leu Ser Tyr Glu Thr Val Phe Glu Asn
 80 85 90
 Gly Thr Arg Thr Leu Thr Arg Val Lys Val Gln Asp Leu Val Leu
 95 100 105
 Glu Pro Thr Gln Asn Ile Thr Thr Lys Gly Val Ser Val Arg Arg
 110 115 120
 Lys Arg Gln Val Tyr Gly Thr Asp Ser Arg Phe Ser Ile Leu Asp
 125 130 135
 Lys Arg Phe Leu Thr Asn Phe Pro Phe Ser Thr Ala Val Lys Leu
 140 145 150
 Ser Thr Gly Cys Ser Gly Ile Leu Ile Ser Pro Gln His Val Leu
 155 160 165
 Thr Ala Ala His Cys Val His Asp Gly Lys Asp Tyr Val Lys Gly
 170 175 180
 Ser Lys Lys Leu Arg Val Gly Leu Leu Lys Met Arg Asn Lys Ser
 185 190 195
 Gly Gly Lys Lys Arg Arg Gly Ser Lys Arg Ser Arg Arg Glu Ala
 200 205 210

Ser	Gly	Gly	Asp	Gln	Arg	Glu	Gly	Thr	Arg	Glu	His	Leu	Gln	Glu	
				215					220					225	
Arg	Ala	Lys	Gly	Gly	Arg	Arg	Arg	Lys	Lys	Ser	Gly	Arg	Gly	Gln	
				230					235					240	
Arg	Ile	Ala	Glu	Gly	Arg	Pro	Ser	Phe	Gln	Trp	Thr	Arg	Val	Lys	
				245					250					255	
Asn	Thr	His	Ile	Pro	Lys	Gly	Trp	Ala	Arg	Gly	Gly	Met	Gly	Asp	
				260					265					270	
Ala	Thr	Leu	Asp	Tyr	Asp	Tyr	Ala	Leu	Leu	Glu	Leu	Lys	Arg	Ala	
				275					280					285	
His	Lys	Lys	Lys	Tyr	Met	Glu	Leu	Gly	Ile	Ser	Pro	Thr	Ile	Lys	
				290					295					300	
Lys	Met	Pro	Gly	Gly	Met	Ile	His	Phe	Ser	Gly	Phe	Asp	Asn	Asp	
				305					310					315	
Arg	Ala	Asp	Gln	Leu	Val	Tyr	Arg	Phe	Cys	Ser	Val	Ser	Asp	Glu	
				320					325					330	
Ser	Asn	Asp	Leu	Leu	Tyr	Gln	Tyr	Cys	Asp	Ala	Glu	Ser	Gly	Ser	
				335					340					345	
Thr	Gly	Ser	Gly	Val	Tyr	Leu	Arg	Leu	Lys	Asp	Pro	Asp	Lys	Lys	
				350					355					360	
Asn	Trp	Lys	Arg	Lys	Ile	Ile	Ala	Val	Tyr	Ser	Gly	His	Gln	Trp	
				365					370					375	
Val	Asp	Val	His	Gly	Val	Gln	Lys	Asp	Tyr	Asn	Val	Ala	Val	Arg	
				380					385					390	
Ile	Thr	Pro	Leu	Lys	Tyr	Ala	Gln	Ile	Cys	Leu	Trp	Ile	His	Gly	
				395					400					405	
Asn	Asp	Ala	Asn	Cys	Ala	Tyr	Gly								
				410											

<210> 297

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 297

gcatctgcag gagagagcga aggg 24

<210> 298

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 298
catcgttccc gtgaatccag aggc 24

<210> 299
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 299
gaaggaggc cttcctttca gtggacccgg gtcaagaata cccac 45

<210> 300
<211> 1869
<212> DNA
<213> Homo sapiens

<400> 300
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ccagtactgg atgtgacagc aggcagagga gcacttagca gcttattcag 100
tgtccgattc tgattccggc aaggatccaa gcatggaatg ctgccgtcgg 150
gcaactcctg gcacactgct cctctttctg gctttcctgc tcctgagttc 200
caggaccgca cgctccgagg aggaccggga cggcctatgg gatgcctggg 250
gcccatggag tgaatgetca cgcacctgcg ggggaggggc ctactactct 300
ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata 350
cagaacatgc agtaatgtgg actgcccacc agaagcaggt gatttccgag 400
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gtttaaagaa agcagtgtct cactgggtgt agctttcatg gggtctgaac 1800
taagtgtaat catctacca aagctttttg gctctcaaat taaagattga 1850
ttagtttcaa aaaaaaaaaa 1869

<210> 301

<211> 525

<212> PRT

<213> Homo sapiens

<400> 301

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1				5					10					15
Leu	Ala	Phe	Leu	Leu	Leu	Ser	Ser	Arg	Thr	Ala	Arg	Ser	Glu	Glu
			20						25					30
Asp	Arg	Asp	Gly	Leu	Trp	Asp	Ala	Trp	Gly	Pro	Trp	Ser	Glu	Cys
			35						40					45
Ser	Arg	Thr	Cys	Gly	Gly	Gly	Ala	Ser	Tyr	Ser	Leu	Arg	Arg	Cys
			50						55					60

Leu	Ser	Ser	Lys	Ser 65	Cys	Glu	Gly	Arg	Asn 70	Ile	Arg	Tyr	Arg	Thr 75
Cys	Ser	Asn	Val	Asp 80	Cys	Pro	Pro	Glu	Ala 85	Gly	Asp	Phe	Arg	Ala 90
Gln	Gln	Cys	Ser	Ala 95	His	Asn	Asp	Val	Lys 100	His	His	Gly	Gln	Phe 105
Tyr	Glu	Trp	Leu	Pro 110	Val	Ser	Asn	Asp	Pro 115	Asp	Asn	Pro	Cys	Ser 120
Leu	Lys	Cys	Gln	Ala 125	Lys	Gly	Thr	Thr	Leu 130	Val	Val	Glu	Leu	Ala 135
Pro	Lys	Val	Leu	Asp 140	Gly	Thr	Arg	Cys	Tyr 145	Thr	Glu	Ser	Leu	Asp 150
Met	Cys	Ile	Ser	Gly 155	Leu	Cys	Gln	Ile	Val 160	Gly	Cys	Asp	His	Gln 165
Leu	Gly	Ser	Thr	Val 170	Lys	Glu	Asp	Asn	Cys 175	Gly	Val	Cys	Asn	Gly 180
Asp	Gly	Ser	Thr	Cys 185	Arg	Leu	Val	Arg	Gly 190	Gln	Tyr	Lys	Ser	Gln 195
Leu	Ser	Ala	Thr	Lys 200	Ser	Asp	Asp	Thr	Val 205	Val	Ala	Leu	Pro	Tyr 210
Gly	Ser	Arg	His	Ile 215	Arg	Leu	Val	Leu	Lys 220	Gly	Pro	Asp	His	Leu 225
Tyr	Leu	Glu	Thr	Lys 230	Thr	Leu	Gln	Gly	Thr 235	Lys	Gly	Glu	Asn	Ser 240
Leu	Ser	Ser	Thr	Gly 245	Thr	Phe	Leu	Val	Asp 250	Asn	Ser	Ser	Val	Asp 255
Phe	Gln	Lys	Phe	Pro 260	Asp	Lys	Glu	Ile	Leu 265	Arg	Met	Ala	Gly	Pro 270
Leu	Thr	Ala	Asp	Phe 275	Ile	Val	Lys	Ile	Arg 280	Asn	Ser	Gly	Ser	Ala 285
Asp	Ser	Thr	Val	Gln 290	Phe	Ile	Phe	Tyr	Gln 295	Pro	Ile	Ile	His	Arg 300
Trp	Arg	Glu	Thr	Asp 305	Phe	Phe	Pro	Cys	Ser 310	Ala	Thr	Cys	Gly	Gly 315
Gly	Tyr	Gln	Leu	Thr 320	Ser	Ala	Glu	Cys	Tyr 325	Asp	Leu	Arg	Ser	Asn 330
Arg	Val	Val	Ala	Asp 335	Gln	Tyr	Cys	His	Tyr 340	Tyr	Pro	Glu	Asn	Ile 345
Lys	Pro	Lys	Pro	Lys	Leu	Gln	Glu	Cys	Asn	Leu	Asp	Pro	Cys	Pro

Ala Ser Asp Gly Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His	350	355	360
365	370	375	
Pro Leu Pro Arg Trp Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser	380	385	390
Ser Cys Gly Gly Gly Ile Gln Ser Arg Ala Val Ser Cys Val Glu	395	400	405
Glu Asp Ile Gln Gly His Val Thr Ser Val Glu Glu Trp Lys Cys	410	415	420
Met Tyr Thr Pro Lys Met Pro Ile Ala Gln Pro Cys Asn Ile Phe	425	430	435
Asp Cys Pro Lys Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr Val	440	445	450
Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp	455	460	465
His Arg Gly Met His Thr Gly Gly Cys Ser Pro Lys Thr Lys Pro	470	475	480
His Ile Lys Glu Glu Cys Ile Val Pro Thr Pro Cys Tyr Lys Pro	485	490	495
Lys Glu Lys Leu Pro Val Glu Ala Lys Leu Pro Trp Phe Lys Gln	500	505	510
Ala Gln Glu Leu Glu Glu Gly Ala Ala Val Ser Glu Glu Pro Ser	515	520	525

<210> 302
 <211> 1533
 <212> DNA
 <213> Homo sapiens

<400> 302
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 ccagcggctg cgcagaggcg gggaccccgg cctcatgcac gggaagactg 200
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 cgccgaggag gcggcgggtc agctccgccc cgagctccgc caggccgcgg 350
 agtgcggccc agagcctggc gtcagcgggg tgggcgagct catagtccgg 400
 gagctggacc tcgcctcgct gcgctcggtg cgcgccttct gccaggaaat 450

Val	Leu	Ile	Thr	Gly 50	Ala	Asn	Ser	Gly	Leu 55	Gly	Arg	Ala	Thr	Ala 60
Ala	Glu	Leu	Leu	Arg 65	Leu	Gly	Ala	Arg	Val 70	Ile	Met	Gly	Cys	Arg 75
Asp	Arg	Ala	Arg	Ala 80	Glu	Glu	Ala	Ala	Gly 85	Gln	Leu	Arg	Arg	Glu 90
Leu	Arg	Gln	Ala	Ala 95	Glu	Cys	Gly	Pro	Glu 100	Pro	Gly	Val	Ser	Gly 105
Val	Gly	Glu	Leu	Ile 110	Val	Arg	Glu	Leu	Asp 115	Leu	Ala	Ser	Leu	Arg 120
Ser	Val	Arg	Ala	Phe 125	Cys	Gln	Glu	Met	Leu 130	Gln	Glu	Glu	Pro	Arg 135
Leu	Asp	Val	Leu	Ile 140	Asn	Asn	Ala	Gly	Ile 145	Phe	Gln	Cys	Pro	Tyr 150
Met	Lys	Thr	Glu	Asp 155	Gly	Phe	Glu	Met	Gln 160	Phe	Gly	Val	Asn	His 165
Leu	Gly	His	Phe	Leu 170	Leu	Thr	Asn	Leu	Leu 175	Leu	Gly	Leu	Leu	Lys 180
Ser	Ser	Ala	Pro	Ser 185	Arg	Ile	Val	Val	Val 190	Ser	Ser	Lys	Leu	Tyr 195
Lys	Tyr	Gly	Asp	Ile 200	Asn	Phe	Asp	Asp	Leu 205	Asn	Ser	Glu	Gln	Ser 210
Tyr	Asn	Lys	Ser	Phe 215	Cys	Tyr	Ser	Arg	Ser 220	Lys	Leu	Ala	Asn	Ile 225
Leu	Phe	Thr	Arg	Glu 230	Leu	Ala	Arg	Arg	Leu 235	Glu	Gly	Thr	Asn	Val 240
Thr	Val	Asn	Val	Leu 245	His	Pro	Gly	Ile	Val 250	Arg	Thr	Asn	Leu	Gly 255
Arg	His	Ile	His	Ile 260	Pro	Leu	Leu	Val	Lys 265	Pro	Leu	Phe	Asn	Leu 270
Val	Ser	Trp	Ala	Phe 275	Phe	Lys	Thr	Pro	Val 280	Glu	Gly	Ala	Gln	Thr 285
Ser	Ile	Tyr	Leu	Ala 290	Ser	Ser	Pro	Glu	Val 295	Glu	Gly	Val	Ser	Gly 300
Arg	Tyr	Phe	Gly	Asp 305	Cys	Lys	Glu	Glu	Glu 310	Leu	Leu	Pro	Lys	Ala 315
Met	Asp	Glu	Ser	Val 320	Ala	Arg	Lys	Leu	Trp 325	Asp	Ile	Ser	Glu	Val 330
Met	Val	Gly	Leu	Leu	Lys									

<210> 304
 <211> 521
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 20, 34, 62, 87, 221, 229
 <223> unknown base

<400> 304
 ggggattgta aagaggaagn actgtgccca aagntatgga tgaatctggt 50
 gcaagaaaat tntgggatat cagtgaagtg atggttngcc tgctaaaata 100
 ggaacaagga gtaaaagagc tgtttataaa actgcatatc agttatatct 150
 gtgatcagga atgggtgtgga ttgagaactt gttacttgaa gaaaaagaat 200
 tttgatattg gaatagcctg ntaagaggna catgtgggta ttttgagatt 250
 actgaaaaat ttttttggg ataagagaat ttcagcaaag atgttttaaa 300
 tatatatagt aagtataatg aataataagt acaatgaaaa atacaattat 350
 attgtaaaat tataactggg caagcatgga tgacatatta atatttgtca 400
 gaattaagtg actcaaagtg ctatcgagag gtttttcaag tatctttgag 450
 tttcatggcc aaagtgttaa ctagtgttac tacaatgttt ggtgtttgtg 500
 tggaaattat ctgcctggct t 521

<210> 305
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 305
 ccaggaaatg ctccaggaag agcc 24

<210> 306
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 306
 gcccatgaca ccaaattgaa gagtgg 26

<210> 307

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 307
aacgcaggga tcttccagtg cccttacatg aagactgaag atggg 45

<210> 308
<211> 1523
<212> DNA
<213> Homo sapiens

<400> 308
gagaggacga ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 50
cggagcccag ccctttccta acccaaccca acctagccca gtcccagccg 100
ccagcgcctg tccctgtcac ggaccccagc gttaccatgc atcctgccgt 150
cttcctatcc ttacccgacc tcagatgctc ccttctgctc ctggtaactt 200
gggttttttac tcctgtaaca actgaaataa caagtcttgc tacagagaat 250
atagatgaaa ttttaaaca tgctgatgtt gcttttagtaa atttttatgc 300
tgactgggtg cgtttcagtc agatgttgca tccaattttt gaggaagctt 350
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 400
agagttgatt gtgatcagca ctctgacata gcccagagat acaggataag 450
caaataccca accctcaaat tgtttcgtaa tgggatgatg atgaagagag 500
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggcaa 550
caaaaaagtg accccattca agaaattcgg gacttagcag aaatcaccac 600
tcttgatcgc agcaaaagaa atatcattgg atattttgag caaaaggact 650
cggacaacta tagagttttt gaacgagtag cgaatatattt gcatgatgac 700
tgtgcctttc tttctgcatt tggggatgtt tcaaaaccgg aaagatatag 750
tggcgacaac ataatctaca aaccaccagg gcattctgct ccggatatgg 800
tgtacttggg agctatgaca aattttgatg tgacttaca ttggattcaa 850
gataaatgtg ttcctcttgt ccgagaaata acatttgaaa atggagagga 900
attgacagaa gaaggactgc cttttctcat actctttcac atgaaagaag 950
atacagaaag tttagaaata ttccagaatg aagtagctcg gcaattaata 1000
agtgaaaaag gtacaataaa ctttttacat gccgattgtg acaaatttag 1050

acatcctctt ctgcacatac agaaaactcc agcagattgt cctgtaatcg 1100
ctattgacag ctttaggcat atgtatgtgt ttggagactt caaagatgta 1150
ttaattcctg gaaaactcaa gcaattcgta tttgacttac attctggaaa 1200
actgcacaga gaattccatc atggacctga cccaactgat acagccccag 1250
gagagcaagc ccaagatgta gcaagcagtc cacctgagag ctcccttcag 1300
aaactagcac ccagtgaata taggtatact ctattgaggg atcgagatga 1350
gctttaaaaaa cttgaaaaac agtttgtaag cctttcaaca gcagcatcaa 1400
cctacgtggg ggaaatagta aacctatatt ttcataattc tatgtgtatt 1450
tttattttga ataaacagaa agaaatttaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa aaaaaaaaaa aaa 1523

<210> 309
<211> 406
<212> PRT
<213> Homo sapiens

<400> 309
Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser
1 5 10 15
Leu Leu Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu
20 25 30
Ile Thr Ser Leu Ala Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn
35 40 45
Ala Asp Val Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe
50 55 60
Ser Gln Met Leu His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile
65 70 75
Lys Glu Glu Phe Pro Asn Glu Asn Gln Val Val Phe Ala Arg Val
80 85 90
Asp Cys Asp Gln His Ser Asp Ile Ala Gln Arg Tyr Arg Ile Ser
95 100 105
Lys Tyr Pro Thr Leu Lys Leu Phe Arg Asn Gly Met Met Met Lys
110 115 120
Arg Glu Tyr Arg Gly Gln Arg Ser Val Lys Ala Leu Ala Asp Tyr
125 130 135
Ile Arg Gln Gln Lys Ser Asp Pro Ile Gln Glu Ile Arg Asp Leu
140 145 150
Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys Arg Asn Ile Ile Gly
155 160 165

Tyr	Phe	Glu	Gln	Lys	Asp	Ser	Asp	Asn	Tyr	Arg	Val	Phe	Glu	Arg	170	175	180
Val	Ala	Asn	Ile	Leu	His	Asp	Asp	Cys	Ala	Phe	Leu	Ser	Ala	Phe	185	190	195
Gly	Asp	Val	Ser	Lys	Pro	Glu	Arg	Tyr	Ser	Gly	Asp	Asn	Ile	Ile	200	205	210
Tyr	Lys	Pro	Pro	Gly	His	Ser	Ala	Pro	Asp	Met	Val	Tyr	Leu	Gly	215	220	225
Ala	Met	Thr	Asn	Phe	Asp	Val	Thr	Tyr	Asn	Trp	Ile	Gln	Asp	Lys	230	235	240
Cys	Val	Pro	Leu	Val	Arg	Glu	Ile	Thr	Phe	Glu	Asn	Gly	Glu	Glu	245	250	255
Leu	Thr	Glu	Glu	Gly	Leu	Pro	Phe	Leu	Ile	Leu	Phe	His	Met	Lys	260	265	270
Glu	Asp	Thr	Glu	Ser	Leu	Glu	Ile	Phe	Gln	Asn	Glu	Val	Ala	Arg	275	280	285
Gln	Leu	Ile	Ser	Glu	Lys	Gly	Thr	Ile	Asn	Phe	Leu	His	Ala	Asp	290	295	300
Cys	Asp	Lys	Phe	Arg	His	Pro	Leu	Leu	His	Ile	Gln	Lys	Thr	Pro	305	310	315
Ala	Asp	Cys	Pro	Val	Ile	Ala	Ile	Asp	Ser	Phe	Arg	His	Met	Tyr	320	325	330
Val	Phe	Gly	Asp	Phe	Lys	Asp	Val	Leu	Ile	Pro	Gly	Lys	Leu	Lys	335	340	345
Gln	Phe	Val	Phe	Asp	Leu	His	Ser	Gly	Lys	Leu	His	Arg	Glu	Phe	350	355	360
His	His	Gly	Pro	Asp	Pro	Thr	Asp	Thr	Ala	Pro	Gly	Glu	Gln	Ala	365	370	375
Gln	Asp	Val	Ala	Ser	Ser	Pro	Pro	Glu	Ser	Ser	Phe	Gln	Lys	Leu	380	385	390
Ala	Pro	Ser	Glu	Tyr	Arg	Tyr	Thr	Leu	Leu	Arg	Asp	Arg	Asp	Glu	395	400	405

Leu

<210> 310
 <211> 182
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure

<222> 36, 48
<223> unknown base

<400> 310
attaaggaag aattttccaaa tgaaaatcaa gtagtntttg ccagagtnga 50
ttgtgatcag cactctgaca tagcccagag atacaggata agcaaatacc 100
caaccctcaa attgtttcgt aatgggatga tgatgaagag agaatacagg 150
ggtcagcgat cagtgaaagc attggcagat ta 182

<210> 311
<211> 598
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 38, 59, 140, 169, 174, 183, 282-283, 294-295, 319, 396
<223> unknown base

<400> 311
agaggcctct ctggaagttg tcccgggtgt tcgccgcngg agcccgggtc 50
gagaggacna ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 100
cggagcccag ccctttccta acccaaccca acctagcccn gtcccagccg 150
ccagcgctg tccctgtenc gganccacgc gtnaccatgc atcctgccgt 200
cttcctatcc ttacccgacc tcagatgctc ctttctgctc ctggttaactt 250
gggtttttac tcttgtaaca actgaaataa cnngtcttga tacnnagaat 300
atagatgaaa ttttaaacna tgctgatgtg gcttttagtca atttttatgc 350
tgactgggtgt cgtttcagtc agatgtggca tccaatTTTT gaggangctt 400
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 450
agagttgatt gtgatcagca ctctgacata gccagagat acaggataag 500
caaataccca accctcaaat tgtttcgtaa tgggatgatg atgaagagag 550
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggc 598

<210> 312
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
tgagaggcct ctctggaagt tg 22

<210> 313
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 313
 gtcagcgatc agtgaaagc 19

 <210> 314
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 314
 ccagaatgaa gtagctcggc 20

 <210> 315
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 315
 ccgactcaaa atgcattgtc 20

 <210> 316
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 316
 catttggcag gaattgtcc 19

 <210> 317
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 317
 ggtgctatag gccaaagg 18

 <210> 318
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 318

ctgtatctct gggctatgtc agag 24

<210> 319

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 319

ctacatataa tggcacatgt cagcc 25

<210> 320

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 320

cgtcttccta tccttaccgc acctcagatg ctcccttctg ctctg 46

<210> 321

<211> 1333

<212> DNA

<213> Homo sapiens

<400> 321

gcccacgcgt ccgatggcgt tcacgttcgc ggccttctgc tacatgctgg 50

cgctgctgct cactgccgcg ctcatcttct tcgccatttg gcacattata 100

gcatttgatg agctgaagac tgattacaag aatcctatag accagtgtaa 150

taccctgaat ccccttgtag tcccagagta cctcatccac gctttcttct 200

gtgtcatgtt tctttgtgca gcagagtggc ttacactggg tctcaatatg 250

cccctcttgg catatcatat ttggagggtat atgagtagac cagtgatgag 300

tggcccagga ctctatgacc ctacaacat catgaatgca gatattctag 350

catattgtca gaaggaagga tggtgcaaata tagcttttta tcttctagca 400

tttttttact acctatatgg catgatctat gttttggtga gctcttagaa 450

caacacacag aagaattggt ccagttaagt gcatgcaaaa agccaccaaa 500

tgaagggtat ctatccagca agatcctgtc caagagtagc ctgtggaatc 550

tgatcagtta ctttaaaaaa tgactcctta ttttttaaata gtttccacat 600
 ttttgcttgt ggaaagactg ttttcatatg ttatactcag ataaagattt 650
 taaatggtat tacgtataaa ttaatatataa atgattacct ctggtgttga 700
 caggtttgaa cttgcacttc ttaaggaaca gccataatcc tctgaatgat 750
 gcattaatta ctgactgtcc tagtacattg gaagcttttg tttataggaa 800
 cttgtagggc tcatttttgg ttcattgaaa cagtatctaa ttataaatta 850
 gctgtagata tcagggtgctt ctgatgaagt gaaaatgtat atctgactag 900
 tgggaaactt catgggtttc ctcatctgtc atgtcgatga ttatatatgg 950
 atacatttac aaaaataaaa agcgggaatt ttcccttcgc ttgaatatta 1000
 tcctgtata ttgcatgaat gagagatttc ccatatttcc atcagagtaa 1050
 taaatatact tgctttaatt cttaagcata agtaaacadg atataaaaat 1100
 atatgctgaa ttacttgtga agaatgcatt taaagctatt ttaaattgtg 1150
 ttttatttgt aagacattac ttattaagaa attgggtatt atgcttactg 1200
 ttctaactctg gtggtaaagg tattcttaag aatttgcagg tactacagat 1250
 tttcaaaact gaatgagaga aaattgtata accatcctgc tgttccttta 1300
 gtgcaataca ataaaactct gaaattaaga ctc 1333

<210> 322

<211> 144

<212> PRT

<213> Homo sapiens

<400> 322

Met	Ala	Phe	Thr	Phe	Ala	Ala	Phe	Cys	Tyr	Met	Leu	Ala	Leu	Leu
1				5					10					15
Leu	Thr	Ala	Ala	Leu	Ile	Phe	Phe	Ala	Ile	Trp	His	Ile	Ile	Ala
				20					25					30
Phe	Asp	Glu	Leu	Lys	Thr	Asp	Tyr	Lys	Asn	Pro	Ile	Asp	Gln	Cys
				35					40					45
Asn	Thr	Leu	Asn	Pro	Leu	Val	Leu	Pro	Glu	Tyr	Leu	Ile	His	Ala
				50					55					60
Phe	Phe	Cys	Val	Met	Phe	Leu	Cys	Ala	Ala	Glu	Trp	Leu	Thr	Leu
				65					70					75
Gly	Leu	Asn	Met	Pro	Leu	Leu	Ala	Tyr	His	Ile	Trp	Arg	Tyr	Met
				80					85					90
Ser	Arg	Pro	Val	Met	Ser	Gly	Pro	Gly	Leu	Tyr	Asp	Pro	Thr	Thr
				95					100					105

Ile	Met	Asn	Ala	Asp	Ile	Leu	Ala	Tyr	Cys	Gln	Lys	Glu	Gly	Trp
				110					115					120
Cys	Lys	Leu	Ala	Phe	Tyr	Leu	Leu	Ala	Phe	Phe	Tyr	Tyr	Leu	Tyr
				125					130					135
Gly	Met	Ile	Tyr	Val	Leu	Val	Ser	Ser						
				140										

<210> 323
 <211> 477
 <212> DNA
 <213> Homo sapiens

<400> 323
 attatagcat ttgatgagct gaagactgat tacaagatcc tatagaccag 50
 tgtaataccc tgaatcccct tgtactccca gagtacctca tccacgcttt 100
 cttctgtgtc atgtttcttt gtgcagcaga gtggcttaca ctgggtctca 150
 atatgcccct cttggcatat catatttgga ggtatatgag tagaccagtg 200
 atgagtggcc caggactcta tgaccctaca accatcatga atgcagatat 250
 tctagcatat tgtcagaagg aaggatgggtg caaattagct ttttatcttc 300
 tagcatTTTT ttactaccta tatggcatga tctatgtttt ggtgagctct 350
 tagaacaaca cacagaagaa ttggtccagt taagtgcatt caaaaagcca 400
 ccaaatgaag ggattctatc cagcaagatc ctgtccaaga gtagcctgtg 450
 gaatctgatc agttacttta aaaaatg 477

<210> 324
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 324
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 325
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 325
 caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 326

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 326
gtgcagcaga gtggcttaca 20

<210> 327
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 327
actggaccaa ttcttctgtg 20

<210> 328
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 328
gatattctag catattgtca gaaggaagga tgggtgcaaat tagct 45

<210> 329
<211> 1174
<212> DNA
<213> Homo sapiens

<400> 329
cggacgcgtg ggggaaaccc ttccgagaaa acagcaacaa gctgagctgc 50
tgtgacagag gggaacaaga tggcggcgcc gaaggggagc ctctgggtga 100
ggacccaact ggggctcccg ccgctgctgc tgctgaccat ggccttggcc 150
ggaggttcgg ggaccgcttc ggctgaagca tttgactcgg tcttgggtga 200
tacggcgtct tgccaccggg cctgtcagtt gacctacccc ttgcacacct 250
accctaagga agaggagttg tacgcatgtc agagagggtg caggctgttt 300
tcaatttgtc agtttgtgga tgatggaatt gacttaaata gaactaaatt 350
ggaatgtgaa tctgcatgta cagaagcata ttccaatct gatgagcaat 400
atgcttgcca tcttggttgc cagaatcagc tgccattcgc tgaactgaga 450
caagaacaac ttatgtccct gatgccaaaa atgcacctac tctttcctct 500

aactctggtg aggtcattct ggagtgcacat gatggactcc gcacagagct 550
tcataacctc ttcattggact ttttatcttc aagccgatga cggaaaaata 600
gttatattcc agtctaagcc agaaatccag tacgcaccac atttggagca 650
ggagcctaca aatttgagag aatcatctct aagcaaatg toctatctgc 700
aaatgagaaa ttcacaagcg cacaggaatt ttcttgaaga tggagaaagt 750
gatggctttt taagatgcct ctctcttaac tctgggtgga ttttaactac 800
aactcttgct ctctcgggtga tggatttgc ttggatttgc tgtgcaactg 850
ttgctacagc tgtggagcag tatgttcct ctgagaagct gagtatctat 900
ggtgacttgg agtttatgaa tgaacaaaag ctaaacagat atccagcttc 950
ttctcttggtg gttgttagat ctaaaactga agatcatgaa gaagcagggc 1000
ctctacctac aaaagtgaat ctgctcatt ctgaaattta agcatttttc 1050
ttttaaaaga caagtgtaat agacatctaa aattccactc ctcatagagc 1100
ttttaaaatg gtttcattgg atataggcct taagaaatca ctataaaatg 1150
caaataaagt tactcaaatc tgtg 1174

<210> 330

<211> 323

<212> PRT

<213> Homo sapiens

<400> 330

Met	Ala	Ala	Pro	Lys	Gly	Ser	Leu	Trp	Val	Arg	Thr	Gln	Leu	Gly	1	5	10	15
Leu	Pro	Pro	Leu	Leu	Leu	Leu	Thr	Met	Ala	Leu	Ala	Gly	Gly	Ser	20	25	30	
Gly	Thr	Ala	Ser	Ala	Glu	Ala	Phe	Asp	Ser	Val	Leu	Gly	Asp	Thr	35	40	45	
Ala	Ser	Cys	His	Arg	Ala	Cys	Gln	Leu	Thr	Tyr	Pro	Leu	His	Thr	50	55	60	
Tyr	Pro	Lys	Glu	Glu	Glu	Leu	Tyr	Ala	Cys	Gln	Arg	Gly	Cys	Arg	65	70	75	
Leu	Phe	Ser	Ile	Cys	Gln	Phe	Val	Asp	Asp	Gly	Ile	Asp	Leu	Asn	80	85	90	
Arg	Thr	Lys	Leu	Glu	Cys	Glu	Ser	Ala	Cys	Thr	Glu	Ala	Tyr	Ser	95	100	105	
Gln	Ser	Asp	Glu	Gln	Tyr	Ala	Cys	His	Leu	Gly	Cys	Gln	Asn	Gln	110	115	120	

Leu	Pro	Phe	Ala	Glu	Leu	Arg	Gln	Glu	Gln	Leu	Met	Ser	Leu	Met		125	130	135
Pro	Lys	Met	His	Leu	Leu	Phe	Pro	Leu	Thr	Leu	Val	Arg	Ser	Phe		140	145	150
Trp	Ser	Asp	Met	Met	Asp	Ser	Ala	Gln	Ser	Phe	Ile	Thr	Ser	Ser		155	160	165
Trp	Thr	Phe	Tyr	Leu	Gln	Ala	Asp	Asp	Gly	Lys	Ile	Val	Ile	Phe		170	175	180
Gln	Ser	Lys	Pro	Glu	Ile	Gln	Tyr	Ala	Pro	His	Leu	Glu	Gln	Glu		185	190	195
Pro	Thr	Asn	Leu	Arg	Glu	Ser	Ser	Leu	Ser	Lys	Met	Ser	Tyr	Leu		200	205	210
Gln	Met	Arg	Asn	Ser	Gln	Ala	His	Arg	Asn	Phe	Leu	Glu	Asp	Gly		215	220	225
Glu	Ser	Asp	Gly	Phe	Leu	Arg	Cys	Leu	Ser	Leu	Asn	Ser	Gly	Trp		230	235	240
Ile	Leu	Thr	Thr	Thr	Leu	Val	Leu	Ser	Val	Met	Val	Leu	Leu	Trp		245	250	255
Ile	Cys	Cys	Ala	Thr	Val	Ala	Thr	Ala	Val	Glu	Gln	Tyr	Val	Pro		260	265	270
Ser	Glu	Lys	Leu	Ser	Ile	Tyr	Gly	Asp	Leu	Glu	Phe	Met	Asn	Glu		275	280	285
Gln	Lys	Leu	Asn	Arg	Tyr	Pro	Ala	Ser	Ser	Leu	Val	Val	Val	Arg		290	295	300
Ser	Lys	Thr	Glu	Asp	His	Glu	Glu	Ala	Gly	Pro	Leu	Pro	Thr	Lys		305	310	315
Val	Asn	Leu	Ala	His	Ser	Glu	Ile									320		

<210> 331

<211> 350

<212> DNA

<213> Homo sapiens

<400> 331

ttgggtgata cggcgtcttg ccaccgggcc tgtcagttga cctacccctt 50

gcacacctac cctaaggaag aggagttgta cgcacgtcag agaggttgca 100

ggctgttttc aatttgctcag tttgtggatg atggaattga cttaaatacga 150

actaaattgg aatgtgaatc tgcacgtaca gaagcatatt cccaatctga 200

tgagcaatat gcttgccatc ttggttgcca gaatcagctg ccattcgctg 250

aactgagaca agaacaactt atgtccctga tgccaaaaat gcacctactc 300
 ttctctctaa ctctggtgag gtcattctgg agtgacatga tggactccgc 350

<210> 332
 <211> 562
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 47
 <223> unknown base

<400> 332
 cacactggcc ggatctttta gagtcctttg accttgacca agggtcngga 50
 aaacagcaac aagctgagct gctgtgacag agggaacaag atggcggcgc 100
 cgaagggagc ctttggggtga ggaccaact ggggctcccg ccgctgctgc 150
 tgctgaccat ggccttggcc ggaggttcgg ggaccgcttc ggctgaagca 200
 tttgactcgg tcttggggtga tacggcgtct tgccaccggg cctgtcagtt 250
 gacctacccc ttgcacacct accctaagga agaggagttg tacgcatgtc 300
 agagagggtg caggctgttt tcaatttgtc agtttggtga tgatggaatt 350
 gacttaaadc gaactaaatt ggaatgtgaa tctgcatgta cagaagcata 400
 ttcccaatct gatgagcaat atgcttgcca tcttggttgc cagaatcagc 450
 tgccattcgc tgaactgaga caagaacaac ttatgtccct gatgccaaaa 500
 atgcacctac tctttcctct aactctggtg aggtcattct ggagtgcacat 550
 gatggactcc gc 562

<210> 333
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 333
 acaagctgag ctgctgtgac ag 22

<210> 334
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 334
tgattctggc aaccaagatg gc 22

<210> 335

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 335

atggccttgg ccggagggttc ggggaccgct tcggctgaag 40

<210> 336

<211> 1885

<212> DNA

<213> Homo sapiens

<400> 336

gcgaggtggc gatcgctgag aggcaggagg gccgaggcgg gcctgggagg 50
cggcccggag gtggggcgcc gctggggccg gcccgcacgg gcttcatctg 100
agggcgcacg gcccgcgacc gagcgtgcgg actggcctcc caagcgtggg 150
gcgacaagct gccggagctg caatggggccg cggctgggga ttcttgtttg 200
gcctcctggg cgccgtgtgg ctgctcagct cgggccacgg agaggagcag 250
cccccgaga cagcggcaca gaggtgcttc tgccaggtta gtggttactt 300
ggatgattgt acctgtgatg ttgaaaccat tgatagattt aataactaca 350
ggcttttccc aagactacaa aaacttcttg aaagtgacta ctttaggtat 400
tacaaggtaa acctgaagag gccgtgtcct ttctggaatg acatcagcca 450
gtgtggaaga agggactgtg ctgtcaaacc atgtcaatct gatgaagttc 500
ctgatggaat taaatctgcg agctacaagt attctgaaga agccaataat 550
ctcattgaag aatgtgaaca agctgaacga cttggagcag tggatgaatc 600
tctgagttag gaaacacaga aggctgttct tcagtggacc aagcatgatg 650
attcttcaga taacttctgt gaagctgatg acattcagtc ccctgaagct 700
gaatatgtag atttgcttct taatcctgag cgctacactg gttacaaggg 750
accagatgct tggaaaatat ggaatgtcat ctacgaagaa aactgtttta 800
agccacagac aattaaaga cctttaaata ctttggcttc tggtaaggg 850
acaagtgaag agaactttt ttacagttgg ctagaaggtc tctgtgtaga 900
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tgcatttgag tgcaagatat cttttacaag agacctggtt agaaaagaaa 1000
 tggggacaca acattacaga atttcaacag cgatttgatg gaattttgac 1050
 tgaaggagaa ggtccaagaa ggcttaagaa cttgtatttt ctctacttaa 1100
 tagaactaag ggctttatcc aaagtgttac cattcttcga gcgcccagat 1150
 tttcaactct ttactggaaa taaaattcag gatgaggaaa acaaaatggt 1200
 acttctggaa atacttcatg aaatcaagtc atttcctttg cattttgatg 1250
 agaattcatt ttttgcctgg gataaaaaag aagcacacaa actaaaggag 1300
 gactttcgac tgcatttttag aaatatttca agaattatgg attgtgttgg 1350
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 ctgctctgaa gatcttattt tctgagaaat tgatagcaaa tatgccagaa 1450
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 attcaacgca tttggaagaa tttctacaag tgtgaaagaa ttagaaaact 1550
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 aaggagaatt atattgtttt aagtaaacac atttttaaaa attgtgttaa 1750
 gtctatgtat aatactactg tgagtaaaaag taatacttta ataatgtggt 1800
 acaaatttta aagtttaata ttgaataaaa ggaggattat caaattaaaa 1850
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1885

<210> 337

<211> 468

<212> PRT

<213> Homo sapiens

<400> 337

Met	Gly	Arg	Gly	Trp	Gly	Phe	Leu	Phe	Gly	Leu	Leu	Gly	Ala	Val
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Trp	Leu	Leu	Ser	Ser	Gly	His	Gly	Glu	Glu	Gln	Pro	Pro	Glu	Thr
			20					25						30

Ala	Ala	Gln	Arg	Cys	Phe	Cys	Gln	Val	Ser	Gly	Tyr	Leu	Asp	Asp
			35						40					45

Cys	Thr	Cys	Asp	Val	Glu	Thr	Ile	Asp	Arg	Phe	Asn	Asn	Tyr	Arg
			50					55						60

Leu	Phe	Pro	Arg	Leu	Gln	Lys	Leu	Leu	Glu	Ser	Asp	Tyr	Phe	Arg
			65						70					75

Tyr	Tyr	Lys	Val	Asn	Leu	Lys	Arg	Pro	Cys	Pro	Phe	Trp	Asn	Asp		80	85	90
Ile	Ser	Gln	Cys	Gly	Arg	Arg	Asp	Cys	Ala	Val	Lys	Pro	Cys	Gln		95	100	105
Ser	Asp	Glu	Val	Pro	Asp	Gly	Ile	Lys	Ser	Ala	Ser	Tyr	Lys	Tyr		110	115	120
Ser	Glu	Glu	Ala	Asn	Asn	Leu	Ile	Glu	Glu	Cys	Glu	Gln	Ala	Glu		125	130	135
Arg	Leu	Gly	Ala	Val	Asp	Glu	Ser	Leu	Ser	Glu	Glu	Thr	Gln	Lys		140	145	150
Ala	Val	Leu	Gln	Trp	Thr	Lys	His	Asp	Asp	Ser	Ser	Asp	Asn	Phe		155	160	165
Cys	Glu	Ala	Asp	Asp	Ile	Gln	Ser	Pro	Glu	Ala	Glu	Tyr	Val	Asp		170	175	180
Leu	Leu	Leu	Asn	Pro	Glu	Arg	Tyr	Thr	Gly	Tyr	Lys	Gly	Pro	Asp		185	190	195
Ala	Trp	Lys	Ile	Trp	Asn	Val	Ile	Tyr	Glu	Glu	Asn	Cys	Phe	Lys		200	205	210
Pro	Gln	Thr	Ile	Lys	Arg	Pro	Leu	Asn	Pro	Leu	Ala	Ser	Gly	Gln		215	220	225
Gly	Thr	Ser	Glu	Glu	Asn	Thr	Phe	Tyr	Ser	Trp	Leu	Glu	Gly	Leu		230	235	240
Cys	Val	Glu	Lys	Arg	Ala	Phe	Tyr	Arg	Leu	Ile	Ser	Gly	Leu	His		245	250	255
Ala	Ser	Ile	Asn	Val	His	Leu	Ser	Ala	Arg	Tyr	Leu	Leu	Gln	Glu		260	265	270
Thr	Trp	Leu	Glu	Lys	Lys	Trp	Gly	His	Asn	Ile	Thr	Glu	Phe	Gln		275	280	285
Gln	Arg	Phe	Asp	Gly	Ile	Leu	Thr	Glu	Gly	Glu	Gly	Pro	Arg	Arg		290	295	300
Leu	Lys	Asn	Leu	Tyr	Phe	Leu	Tyr	Leu	Ile	Glu	Leu	Arg	Ala	Leu		305	310	315
Ser	Lys	Val	Leu	Pro	Phe	Phe	Glu	Arg	Pro	Asp	Phe	Gln	Leu	Phe		320	325	330
Thr	Gly	Asn	Lys	Ile	Gln	Asp	Glu	Glu	Asn	Lys	Met	Leu	Leu	Leu		335	340	345
Glu	Ile	Leu	His	Glu	Ile	Lys	Ser	Phe	Pro	Leu	His	Phe	Asp	Glu		350	355	360
Asn	Ser	Phe	Phe	Ala	Gly	Asp	Lys	Lys	Glu	Ala	His	Lys	Leu	Lys				

	365		370		375
Glu Asp Phe Arg	Leu His Phe Arg Asn	Ile Ser Arg Ile Met Asp			
	380	385		390	
Cys Val Gly Cys	Phe Lys Cys Arg Leu	Trp Gly Lys Leu Gln Thr			
	395	400		405	
Gln Gly Leu Gly	Thr Ala Leu Lys Ile	Leu Phe Ser Glu Lys Leu			
	410	415		420	
Ile Ala Asn Met	Pro Glu Ser Gly Pro	Ser Tyr Glu Phe His Leu			
	425	430		435	
Thr Arg Gln Glu	Ile Val Ser Leu Phe	Asn Ala Phe Gly Arg Ile			
	440	445		450	
Ser Thr Ser Val	Lys Glu Leu Glu Asn	Phe Arg Asn Leu Leu Gln			
	455	460		465	

Asn Ile His

<210> 338
 <211> 507
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 101, 263, 376, 397, 426
 <223> unknown base

<400> 338
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 ttaaaagacc tttaaactct ttggcttctg gtcaagggac aagtgaagag 100
 nacacttttt acagttggct agaaggtctc tgtgtagaaa aaagagcatt 150
 ctacagactt atatctggcc tacatgcaag cattaatgtg catttgagtg 200
 caagatatct tttaacaagag acctgggttag aaaagaaatg gggacacaa 250
 attacagaat ttnaacagcg atttgatgga attttgactg aaggagaagg 300
 tccaagaagg cttaagaact tgtattttct ctacttaata gaactaaggg 350
 ctttatccaa agtgttacca ttcttngagc gccagattt tcaactnttt 400
 actggaaata aaattcagga tgaggnaaac aaaatgttac ttttgaaat 450
 acttcatgaa atcaagtcatt ttcctttgca ttttgatgag aattcatttt 500
 tttgctg 507

<210> 339
 <211> 20

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 339
 aagctgccgg agctgcaatg 20

 <210> 340
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 340
 ttgcttctta atcctgagcg c 21

 <210> 341
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 341
 aaaggaggac tttcgactgc 20

 <210> 342
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 342
 agagattcat ccactgctcc aagtcg 26

 <210> 343
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 343
 tgtccagaaa caggcacata tcagc 25

 <210> 344
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 344

agacagcggc acagaggtgc ttctgccagg ttagtggtta cttggatgat 50

<210> 345

<211> 1486

<212> DNA

<213> Homo sapiens

<400> 345

cggacgcgtg ggcggacgcg tgggaggacg cgtgggttgg gagggggcag 50

gatgggaggg aaagtgaaga aaacagaaaa ggagagggac agaggccaga 100

ggactttctca tactggacag aaaccgatca ggcattggaac tccccttcgt 150

cactcacctg ttcttgcccc tgggtgttct gacaggtctc tgctccccct 200

ttaacctgga tgaacatcac ccacgcctat tcccagggcc accagaagct 250

gaatttgatg acagtgtctt acaacatggt ggggggtggac agcgatggat 300

gctggtgggc gccccctggg atgggccttc aggcgaccgg aggggggacg 350

tttatcgctg ccctgtaggg ggggcccaaca atgccccatg tgccaagggc 400

cacttaggtg actaccaact gggaaattca tctcatcctg ctgtgaatat 450

gcacctgggg atgtctctgt tagagacaga tggatgatgg ggattcatgg 500

tgagctaagg agaggggtgt ggcagtgtct ctgaagggtcc ataaaagaaa 550

aaagagaagt gtggaaggg aaaatggtct gtgtggaggg gtcaaggagt 600

taaaaaccct agaaagcaaa aggtaggtaa tgtcaggag tagtcttcat 650

gcctccttca actgggagca tgttctgagg gtgccctccc aagcctggga 700

gtaactatth ccccatccc caggcctgtg cccctctctg gtctcgtgct 750

tgtggcagct ctgtcttcag ttctgggata tgtgcccgtg tggatgcttc 800

attccagcct caggaagcc tggcaccac tgcccaacgt gagccagagg 850

aaggctgagt acttggttcc cagaaggaga tactgggtgg gaaaaagatg 900

gggcaaagcg gtagatgcc tggcaaagg cctgcatggc tatcctcatt 950

gctacctaat gtgcttgcaa aagctccatg ttctctaaca gattcagact 1000

cctggccagg tgtggtggcc cacacctgta attctagcac tttgggaggc 1050

caagggtggc agatcacttg aggtcaggag ttcaagacca gcctggccaa 1100

catggtgaaa ctccatctct actaaaaaaaa aaaaaataca aaaattagct 1150

ggggtgcgcta gtgcatgcct gtaatctcat ctactcggga ggctaagaca 1200
 ggagactctc acttcaaccc aggaggtgga ggttgcggtg agccaagatt 1250
 gtgcctctgc actctagcgt gggtgacaga gtaagcgaga ctccatctca 1300
 aaaataataa taataataat tcagactcct tatcaggagt ccatgatctg 1350
 gcctggcaca gtaactcatg cctgtaatcc caacattttg ggaggccaac 1400
 gcaggaggat tgcttgaggt ctggaggttt gagaccagcc tgggcaacat 1450
 agaaagaccc catctctaaa taaatgtttt aaaaat 1486

<210> 346

<211> 124

<212> PRT

<213> Homo sapiens

<400> 346

Met	Glu	Leu	Pro	Phe	Val	Thr	His	Leu	Phe	Leu	Pro	Leu	Val	Phe
1				5					10					15
Leu	Thr	Gly	Leu	Cys	Ser	Pro	Phe	Asn	Leu	Asp	Glu	His	His	Pro
				20					25					30
Arg	Leu	Phe	Pro	Gly	Pro	Pro	Glu	Ala	Glu	Phe	Gly	Tyr	Ser	Val
				35					40					45
Leu	Gln	His	Val	Gly	Gly	Gly	Gln	Arg	Trp	Met	Leu	Val	Gly	Ala
				50					55					60
Pro	Trp	Asp	Gly	Pro	Ser	Gly	Asp	Arg	Arg	Gly	Asp	Val	Tyr	Arg
				65					70					75
Cys	Pro	Val	Gly	Gly	Ala	His	Asn	Ala	Pro	Cys	Ala	Lys	Gly	His
				80					85					90
Leu	Gly	Asp	Tyr	Gln	Leu	Gly	Asn	Ser	Ser	His	Pro	Ala	Val	Asn
				95					100					105
Met	His	Leu	Gly	Met	Ser	Leu	Leu	Glu	Thr	Asp	Gly	Asp	Gly	Gly
				110					115					120
Phe	Met	Val	Ser											

<210> 347

<211> 509

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 22

<223> unknown base

<400> 347

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ttgccattgg gagggggcag gatgggaggg aaagtgaaga aaacagaaaa 100
ggagagggac agaggccaga ggacttctca tactggacag aaaccgatca 150
ggcatggaac tccccttctg cactcacctg ttcttgcccc tgggtgttcct 200
gacaggtctc tgctccccct ttaacctgga tgaacatcac ccacgcctat 250
tcccagggcc accagaagct gaatttggat acagtgtctt acaacatgtt 300
gggggtggac agcgatggat gctggtgggc gccccctggg atgggccttc 350
aggcgaccgg aggggggacg ttatctgctg ccctgtaggg ggggcccaca 400
atgccccatg tgccaagggc cacttaggtg actaccaact gggaaattca 450
tctcatcctg ctgtgaatat gcacctgggg atgtctctgt tagagacaga 500
tggtgatgg 509

<210> 348
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 348
agggacagag gccagaggac ttc 23

<210> 349
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 349
caggtgcata ttcacagcag gatg 24

<210> 350
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 350
ggaactcccc ttctgcactc acctgttctt gccccctggtg ttct 45

<210> 351
<211> 2056
<212> DNA

<213> Homo sapiens

<400> 351

aaagttacat tttctctgga actctcctag gccactccct gctgatgcaa 50
catctgggtt tgggcagaaa ggaggggtgct tcggagcccg ccctttctga 100
gcttcctggg cgggctctag aacaattcag gcttcgctgc gactcagacc 150
tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
gctttatttt ggaaagaaac aatgttctag gtcaaactga gtctacaaa 250
tgcagacttt cacaatggtt ctagaagaaa tctggacaag tcttttcatg 300
tggtttttct acgcattgat tccatgtttg ctacacagatg aagtggccat 350
tctgcctgcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
tcttgatgtg gagcccagtg atcgcgcctg gagaaacagt gtactattct 450
gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
cccagcagc tgggtgtcac tcaactgaagg tcctgagtgt gatgtcactg 550
atgacatcac ggccactgtg ccatacaacc ttcgtgtcag ggccacattg 600
ggctcacaga cctcagcctg gagcatcctg aagcatccct ttaatagaaa 650
ctcaaccatc cttacccgac ctgggatgga gatcacaaa gatggcttcc 700
acctggttat tgagctggag gacctggggc ccagtttga gttccttgtg 750
gcctactgga ggagggagcc tggtgccgag gaacatgtca aaatgggtgag 800
gagtgggggt attccagtgc acctagaaac catggagcca ggggctgcat 850
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 aaacacacac acacagagtc tctctctata tatacacacg tacacataaa 1550
 tacaccagc acttgcaagg ctagagggaa actggtgaca ctctacagtc 1600
 tgactgattc agtgtttctg gagagcagga cataaatgta tgatgagaat 1650
 gatcaaggac tctacacact ggggtggcttg gagagccac tttcccagaa 1700
 taatccttga gagaaaagga atcatgggag caatggtgtt gagttcactt 1750
 caagcccaat gccggtgcag aggggaatgg cttagcgagc tctacagtag 1800
 gtgacctgga ggaaggtcac agccacactg aaaatgggat gtgcatgaac 1850
 acggaggatc catgaactac tgtaaagtgt tgacagtgtg tgcacactgc 1900
 agacagcagg tgaaatgtat gtgtgcaatg cgacgagaat gcagaagtca 1950
 gtaacatgtg catgtttgtt gtgctccttt tttctgttgg taaagtacag 2000
 aattcagcaa ataaaaaggg ccaccctggc caaaagcggg aaaaaaaaaa 2050
 aaaaaa 2056

<210> 352
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 352
 Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr Ser Leu
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 Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp
 20 25 30
 Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 35 40 45
 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro
 50 55 60
 Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
 65 70 75
 Ser Leu Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser
 80 85 90
 Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala
 95 100 105
 Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
 110 115 120

Thr Ser Ala Trp	Ser Ile Leu Lys His	Pro Phe Asn Arg Asn Ser	125	130	135
Thr Ile Leu Thr	Arg Pro Gly Met Glu	Ile Thr Lys Asp Gly Phe	140	145	150
His Leu Val Ile	Glu Leu Glu Asp Leu	Gly Pro Gln Phe Glu Phe	155	160	165
Leu Val Ala Tyr	Trp Arg Arg Glu Pro	Gly Ala Glu Glu His Val	170	175	180
Lys Met Val Arg	Ser Gly Gly Ile Pro	Val His Leu Glu Thr Met	185	190	195
Glu Pro Gly Ala	Ala Tyr Cys Val Lys	Ala Gln Thr Phe Val Lys	200	205	210
Ala Ile Gly Arg	Tyr Ser Ala Phe Ser	Gln Thr Glu Cys Val Glu	215	220	225
Val Gln Gly Glu	Ala Ile Pro Leu Val	Leu Ala Leu Phe Ala Phe	230	235	240
Val Gly Phe Met	Leu Ile Leu Val Val	Val Pro Leu Phe Val Trp	245	250	255
Lys Met Gly Arg	Leu Leu Gln Tyr Ser	Cys Cys Pro Val Val Val	260	265	270
Leu Pro Asp Thr	Leu Lys Ile Thr Asn	Ser Pro Gln Lys Leu Ile	275	280	285
Ser Cys Arg Arg	Glu Glu Val Asp Ala	Cys Ala Thr Ala Val Met	290	295	300
Ser Pro Glu Glu	Leu Leu Arg Ala Trp	Ile Ser	305	310	

<210> 353

<211> 864

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 654, 711, 748, 827

<223> unknown base

<400> 353

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cctttctagc ttcctggccg gctctagaac aattcaggct tcgctgcgac 100

tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150

agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200

ccaaatgcag actttcacaa tggttctaga agaaatctgg acaagtcttt 250
 tcatgtgggt tttctaogca ttgattccat gtttgctcac agatgaagtg 300
 gccattctgc ctgccccca gaacctctct gtactctcaa ccaacatgaa 350
 gcatctcttg atgtggagcc cagtgatcgc gcctggagaa acagtgtact 400
 attctgtoga ataccagggg gactacgaga gcctgtacac gagccacatc 450
 tggatcccca gcagctgggt ctactcact gaaggctctg agtgtgatgt 500
 cactgatgac atcacggcca ctgtgccata caacctttgt gtcagggcca 550
 cattgggctc acagacctca gcctggagca tcctgaagca tccctttaat 600
 agaaaactcaa ccatccttac ccgacctggg atggagatca ccaaagatgg 650
 cttncacctg gttattgagc tggaggacct ggggccccag tttgagttcc 700
 ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
 gaacccttg cgccgctgg ggtatctctc gagaaaagag aggcccaata 800
 tgaccacat actcaatatg gacgaantgc tattgtccac ctgtttgagt 850
 ggcgctgggt tgat 864

<210> 354

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 354

aggcttcgct gcgactagac ctc 23

<210> 355

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 355

ccaggtcggg taaggatggt tgag 24

<210> 356

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 356
tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 357

<211> 1670

<212> DNA

<213> Homo sapiens

<400> 357

cccacgcgtc cgcccacgcg tccgagggac aagagagaag agagactgaa 50
acagggagaa gaggcaggag aggaggaggt ggggagagca cgaagctgga 100
ggccgacact gagggagggc gggaggaggt gaagaaggag agaggggaga 150
agaggcagga gctggaaaagg agagaggggag gaggaggagg agatgcggga 200
tgagacactg gagttaggtg gcttgggaga gcttaatgaa aagagaacgg 250
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gctgagagga gtaggaagat caggagctag agggagactg gagggttccg 350
ggaaaagagc agaggaaaga ggaaagacac agagagacgg gagagagaag 400
aagagtgggt ttgaagggcg gatctcagtc cctggctgct ttggcatttg 450
gggaactggg actccctgtg gggaggagag gaaagctgga agtcctggag 500
ggacagggtc ccagaaggag gggacagagg agctgagaga ggggggcagg 550
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ttaaaggggac agaataactta 1670

<210> 358

<211> 328

<212> PRT

<213> Homo sapiens

<400> 358

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Trp	Ala	Ala	Leu	Gly	Ala	Ala	Ala	His	Ile	Gly	Pro	Ala	Pro	Asp	20	25	30	
Pro	Glu	Asp	Trp	Trp	Ser	Tyr	Lys	Asp	Asn	Leu	Gln	Gly	Asn	Phe	35	40	45	
Val	Pro	Gly	Pro	Pro	Phe	Trp	Gly	Leu	Val	Asn	Ala	Ala	Trp	Ser	50	55	60	
Leu	Cys	Ala	Val	Gly	Lys	Arg	Gln	Ser	Pro	Val	Asp	Val	Glu	Leu	65	70	75	
Lys	Arg	Val	Leu	Tyr	Asp	Pro	Phe	Leu	Pro	Pro	Leu	Arg	Leu	Ser	80	85	90	
Thr	Gly	Gly	Glu	Lys	Leu	Arg	Gly	Thr	Leu	Tyr	Asn	Thr	Gly	Arg	95	100	105	
His	Val	Ser	Phe	Leu	Pro	Ala	Pro	Arg	Pro	Val	Val	Asn	Val	Ser	110	115	120	
Gly	Gly	Pro	Leu	Leu	Tyr	Ser	His	Arg	Leu	Ser	Glu	Leu	Arg	Leu	125	130	135	
Leu	Phe	Gly	Ala	Arg	Asp	Gly	Ala	Gly	Ser	Glu	His	Gln	Ile	Asn	140	145	150	
His	Gln	Gly	Phe	Ser	Ala	Glu	Val	Gln	Leu	Ile	His	Phe	Asn	Gln	155	160	165	
Glu	Leu	Tyr	Gly	Asn	Phe	Ser	Ala	Ala	Ser	Arg	Gly	Pro	Asn	Gly				

	170		175		180
Leu Ala Ile Leu	Ser Leu Phe Val Asn	Val Ala Ser Thr Ser	Asn		
	185		190		195
Pro Phe Leu Ser	Arg Leu Leu Asn Arg	Asp Thr Ile Thr Arg	Ile		
	200		205		210
Ser Tyr Lys Asn	Asp Ala Tyr Phe Leu	Gln Asp Leu Ser Leu	Glu		
	215		220		225
Leu Leu Phe Pro	Glu Ser Phe Gly Phe	Ile Thr Tyr Gln Gly	Ser		
	230		235		240
Leu Ser Thr Pro	Pro Cys Ser Glu Thr	Val Thr Trp Ile Leu	Ile		
	245		250		255
Asp Arg Ala Leu	Asn Ile Thr Ser Leu	Gln Met His Ser Leu	Arg		
	260		265		270
Leu Leu Ser Gln	Asn Pro Pro Ser Gln	Ile Phe Gln Ser Leu	Ser		
	275		280		285
Gly Asn Ser Arg	Pro Leu Gln Pro Leu	Ala His Arg Ala Leu	Arg		
	290		295		300
Gly Asn Arg Asp	Pro Arg His Pro Glu	Arg Arg Cys Arg Gly	Pro		
	305		310		315
Asn Tyr Arg Leu	His Val Asp Gly Val	Pro His Gly Arg			
	320		325		

<210> 359
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 359
 tctgctgagg tgcagctcat tcac 24

<210> 360
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 360
 gaggctctgg aagatctgag atgg 24

<210> 361
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 361

gcctctttgt caacgttgcc agtacctcta acccattcct cagtcgcctc 50

<210> 362

<211> 3038

<212> DNA

<213> Homo sapiens

<400> 362

ggcgcttggc tctgcgcgta ctggctgtac ggagcaggag caagaggtcg 50

ccgccagcct ccgcgcgcca gcctcggttcg tgtccccgcc cctcgctcct 100

gcagctactg ctcaaaaacg ctggggcgcc caccctggca gactaacgaa 150

gcagctccct tcccaccca actgcaggtc taattttgga cgctttgcct 200

gccatttctt ccaggttgag ggagccgcag aggcggaggc tcgcgtattc 250

ctgcagtcag caccacgctc gcccccgac gctcggtgct caggcccttc 300

gcgagcgggg ctctccgtct gcggtccctt gtgaaggctc tgggcggctg 350

cagaggccgg ccgtccggtt tggtcacct ctcccaggaa acttcacact 400

ggagagccaa aaggagtgga agagcctgtc ttggagattt tcctggggaa 450

atcctgaggt cattcattat gaagtgtacc gcgcgggagt ggctcagagt 500

aaccacagtg ctgttcatgg ctagagcaat tccagccatg gtggttccca 550

atgccacttt attggagaaa cttttggaaa aatacatgga tgaggatggt 600

gagtgggtgga tagccaaaca acgagggaaa agggccatca cagacaatga 650

catgcagagt attttgacc ttcataataa attacgaagt cagggtgtatc 700

caacagcctc taatatggag tatatgacat gggatgtaga gctggaaaga 750

tctgcagaat cctgggctga aagttgcttg tggaacatg gacctgcaag 800

cttgcttcca tcaattggac agaatttggg agcacactgg ggaagatata 850

ggccccgac gtttcatgta caatcgtggt atgatgaagt gaaagacttt 900

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tggccctgta tgtacacatt atacacaggc cgtgtgggca actagtaaca 1000

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ctggtggggc catgcccctt acaaacatgg gcggccctgt tctgcttgcc 1150

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gtagcagaaa tgaagtcata agcgcacagc aaatgtcca aattgtttct 1350
tgtgaagtaa gattaagaga tcagtgc aaa ggaacaacct gcaataggta 1400
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 taaacattaa aattaatcat gtttcaaaaa aaaaaaaaa 3038

<210> 363

<211> 500

<212> PRT

<213> Homo sapiens

<400> 363

Met	Lys	Cys	Thr	Ala	Arg	Glu	Trp	Leu	Arg	Val	Thr	Thr	Val	Leu
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Phe	Met	Ala	Arg	Ala	Ile	Pro	Ala	Met	Val	Val	Pro	Asn	Ala	Thr
				20					25					30
Leu	Leu	Glu	Lys	Leu	Leu	Glu	Lys	Tyr	Met	Asp	Glu	Asp	Gly	Glu
				35					40					45
Trp	Trp	Ile	Ala	Lys	Gln	Arg	Gly	Lys	Arg	Ala	Ile	Thr	Asp	Asn
				50					55					60
Asp	Met	Gln	Ser	Ile	Leu	Asp	Leu	His	Asn	Lys	Leu	Arg	Ser	Gln
				65					70					75
Val	Tyr	Pro	Thr	Ala	Ser	Asn	Met	Glu	Tyr	Met	Thr	Trp	Asp	Val
				80					85					90
Glu	Leu	Glu	Arg	Ser	Ala	Glu	Ser	Trp	Ala	Glu	Ser	Cys	Leu	Trp
				95					100					105
Glu	His	Gly	Pro	Ala	Ser	Leu	Leu	Pro	Ser	Ile	Gly	Gln	Asn	Leu
				110					115					120
Gly	Ala	His	Trp	Gly	Arg	Tyr	Arg	Pro	Pro	Thr	Phe	His	Val	Gln
				125					130					135
Ser	Trp	Tyr	Asp	Glu	Val	Lys	Asp	Phe	Ser	Tyr	Pro	Tyr	Glu	His
				140					145					150
Glu	Cys	Asn	Pro	Tyr	Cys	Pro	Phe	Arg	Cys	Ser	Gly	Pro	Val	Cys
				155					160					165
Thr	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	Thr	Ser	Asn	Arg	Ile	Gly

	170	175	180
Cys Ala Ile Asn	Leu Cys His Asn Met	Asn Ile Trp Gly Gln Ile	
	185	190	195
Trp Pro Lys Ala	Val Tyr Leu Val Cys	Asn Tyr Ser Pro Lys Gly	
	200	205	210
Asn Trp Trp Gly	His Ala Pro Tyr Lys	His Gly Arg Pro Cys Ser	
	215	220	225
Ala Cys Pro Pro	Ser Phe Gly Gly Gly	Cys Arg Glu Asn Leu Cys	
	230	235	240
Tyr Lys Glu Gly	Ser Asp Arg Tyr Tyr	Pro Pro Arg Glu Glu Glu	
	245	250	255
Thr Asn Glu Ile	Glu Arg Gln Gln Ser	Gln Val His Asp Thr His	
	260	265	270
Val Arg Thr Arg	Ser Asp Asp Ser Ser	Arg Asn Glu Val Ile Ser	
	275	280	285
Ala Gln Gln Met	Ser Gln Ile Val Ser	Cys Glu Val Arg Leu Arg	
	290	295	300
Asp Gln Cys Lys	Gly Thr Thr Cys Asn	Arg Tyr Glu Cys Pro Ala	
	305	310	315
Gly Cys Leu Asp	Ser Lys Ala Lys Val	Ile Gly Ser Val His Tyr	
	320	325	330
Glu Met Gln Ser	Ser Ile Cys Arg Ala	Ala Ile His Tyr Gly Ile	
	335	340	345
Ile Asp Asn Asp	Gly Gly Trp Val Asp	Ile Thr Arg Gln Gly Arg	
	350	355	360
Lys His Tyr Phe	Ile Lys Ser Asn Arg	Asn Gly Ile Gln Thr Ile	
	365	370	375
Gly Lys Tyr Gln	Ser Ala Asn Ser Phe	Thr Val Ser Lys Val Thr	
	380	385	390
Val Gln Ala Val	Thr Cys Glu Thr Thr	Val Glu Gln Leu Cys Pro	
	395	400	405
Phe His Lys Pro	Ala Ser His Cys Pro	Arg Val Tyr Cys Pro Arg	
	410	415	420
Asn Cys Met Gln	Ala Asn Pro His Tyr	Ala Arg Val Ile Gly Thr	
	425	430	435
Arg Val Tyr Ser	Asp Leu Ser Ser Ile	Cys Arg Ala Ala Val His	
	440	445	450
Ala Gly Val Val	Arg Asn His Gly Gly	Tyr Val Asp Val Met Pro	
	455	460	465

Val	Asp	Lys	Arg	Lys	Thr	Tyr	Ile	Ala	Ser	Phe	Gln	Asn	Gly	Ile
				470					475					480
Phe	Ser	Glu	Ser	Leu	Gln	Asn	Pro	Pro	Gly	Gly	Lys	Ala	Phe	Arg
				485					490					495
Val	Phe	Ala	Val	Val										
				500										

<210> 364
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 364
 ggacagaatt tgggagcaca ctgg 24

<210> 365
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 365
 ccaagagtat actgtcctcg 20

<210> 366
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 366
 agcacagatt ttctctacag ccccc 25

<210> 367
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 367
 aaccactcca gcatgtactg ctgc 24

<210> 368
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 368
ccattcaggt gttctgccc tgtatgtaca cattatacac aggtcgtgtg 50

<210> 369
<211> 1685
<212> DNA
<213> Homo sapiens

<400> 369
gcggagacaa gcgcagagcg cagcgcacgg ccacagacag ccctgggcat 50
ccaccgacgg cgcagccgga gccagcagag cgggaaggcg cgccccgggc 100
agagaaagcc gagcagagct gggtagcgtc tccggggcgc cgctccgacg 150
ggccagcgcc ctcccatgt ccctgctccc acgccgcgcc cctccggtca 200
gcatgaggct cctggcggcc gcgctgctcc tgctgctgct ggcgctgtac 250
accgcgcgtg tggacgggtc caaatgcaag tgctcccgga agggacccaa 300
gatccgctac agcgacgtga agaagctgga aatgaagoca aagtaccgcg 350
actgcgagga gaagatgggt atcatcacca ccaagagcgt gtccaggtac 400
cgaggtcagg agcactgcct gcacccaag ctgcagagca ccaagcgctt 450
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aggggtgaaa acctcagaag ggaaaactcc aaaccagttg ggagacttgt 550
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aaaaaaaaaa aaagcctttt tttctcacag gcataagaca caaattatat 650
attgttatga agcacttttt accaacggtc agtttttaca ttttatagct 700
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 aaccattagc attgcatgca ggtttcatat tctttctaag atggaaagta 1650
 ataaaatata tttgaaatgt aaaaaaaaaa aaaaa 1685

<210> 370

<211> 111

<212> PRT

<213> Homo sapiens

<400> 370

Met	Ser	Leu	Leu	Pro	Arg	Arg	Ala	Pro	Pro	Val	Ser	Met	Arg	Leu
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Leu	Ala	Ala	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Ala	Leu	Tyr	Thr	Ala
				20					25					30
Arg	Val	Asp	Gly	Ser	Lys	Cys	Lys	Cys	Ser	Arg	Lys	Gly	Pro	Lys
				35					40					45
Ile	Arg	Tyr	Ser	Asp	Val	Lys	Lys	Leu	Glu	Met	Lys	Pro	Lys	Tyr
				50					55					60
Pro	His	Cys	Glu	Glu	Lys	Met	Val	Ile	Ile	Thr	Thr	Lys	Ser	Val
				65					70					75
Ser	Arg	Tyr	Arg	Gly	Gln	Glu	His	Cys	Leu	His	Pro	Lys	Leu	Gln
				80					85					90
Ser	Thr	Lys	Arg	Phe	Ile	Lys	Trp	Tyr	Asn	Ala	Trp	Asn	Glu	Lys
				95					100					105
Arg	Arg	Val	Tyr	Glu	Glu									
				110										

<210> 371

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 371

cagcgccctc cccatgtccc tg 22

<210> 372

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 372

tcccaactgg tttggagttt tccc 24

<210> 373

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 373

ctccggtcag catgaggctc ctggcggccg ctgctcctgc tgctg 45

<210> 374

<211> 3113

<212> DNA

<213> Homo sapiens

<400> 374

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accctcattg acagccaagc acagtatcca gttgtcaaca caaattatgg 150

caaaatccgg ggcctaagaa caccgttacc caatgagatc ttgggtccag 200

tggagcagta cttaggggtc ccctatgcct cccccccac tggagagagg 250

cggtttcagc cccagaacc cccgtcctcc tggactggca tccgaaatac 300

tactcagttt gctgctgtgt gccccagca cctggatgag agatccttac 350

tgcatgacat gctgcccac tgggtttaccg ccaatttgga tactttgatg 400

acctatgttc aagatcaaaa tgaagactgc ctttacttaa acatctacgt 450

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<210> 375

<211> 816

<212> PRT

<213> Homo sapiens

<400> 375

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			20						25					30
Thr	Asn	Tyr	Gly	Lys	Ile	Arg	Gly	Leu	Arg	Thr	Pro	Leu	Pro	Asn
			35					40						45
Glu	Ile	Leu	Gly	Pro	Val	Glu	Gln	Tyr	Leu	Gly	Val	Pro	Tyr	Ala

	635	640	645
Asn Pro Lys His	Ser Lys Asp Pro His	Lys Thr Gly Pro Glu	Asp
	650	655	660
Thr Thr Val Leu	Ile Glu Thr Lys Arg	Asp Tyr Ser Thr Glu	Leu
	665	670	675
Ser Val Thr Ile	Ala Val Gly Ala Ser	Leu Leu Phe Leu Asn	Ile
	680	685	690
Leu Ala Phe Ala	Ala Leu Tyr Tyr Lys	Lys Asp Lys Arg Arg	His
	695	700	705
Glu Thr His Arg	Arg Pro Ser Pro Gln	Arg Asn Thr Thr Asn	Asp
	710	715	720
Ile Ala His Ile	Gln Asn Glu Glu Ile	Met Ser Leu Gln Met	Lys
	725	730	735
Gln Leu Glu His	Asp His Glu Cys Glu	Ser Leu Gln Ala His	Asp
	740	745	750
Thr Leu Arg Leu	Thr Cys Pro Pro Asp	Tyr Thr Leu Thr Leu	Arg
	755	760	765
Arg Ser Pro Asp	Asp Ile Pro Leu Met	Thr Pro Asn Thr Ile	Thr
	770	775	780
Met Ile Pro Asn	Thr Leu Thr Gly Met	Gln Pro Leu His Thr	Phe
	785	790	795
Asn Thr Phe Ser	Gly Gly Gln Asn Ser	Thr Asn Leu Pro His	Gly
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His Ser Thr Thr	Arg Val		
	815		

<210> 376
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 376
 ggcaagctac ggaaacgtca tcgtg 25

<210> 377
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 377

aacccccgag ccaaaagatg gtcac 25

<210> 378

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 378

gtaccggtga ccaggcagca aaaggcaact atgggctcct ggatcag 47

<210> 379

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 379

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cgagtacttg aaacgggagc actcgtctgc gaagccctac cagggtgtgg 200

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gtggaaccgg gtgccatgtt tcctgagaga ctgggagttg cagggtgcact 350

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<210> 380

<211> 348

<212> PRT

<213> Homo sapiens

<400> 380

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Arg	Cys	Leu	Ser	Ala	Arg	Asp	Gly	Ser	Arg	Met	Leu	Leu	Leu	Leu
				20					25					30
Leu	Leu	Leu	Gly	Ser	Gly	Gln	Gly	Pro	Gln	Gln	Val	Gly	Ala	Gly
				35					40					45
Gln	Thr	Phe	Glu	Tyr	Leu	Lys	Arg	Glu	His	Ser	Leu	Ser	Lys	Pro
				50					55					60
Tyr	Gln	Gly	Val	Gly	Thr	Gly	Ser	Ser	Ser	Leu	Trp	Asn	Leu	Met
				65					70					75
Gly	Asn	Ala	Met	Val	Met	Thr	Gln	Tyr	Ile	Arg	Leu	Thr	Pro	Asp
				80					85					90
Met	Gln	Ser	Lys	Gln	Gly	Ala	Leu	Trp	Asn	Arg	Val	Pro	Cys	Phe
				95					100					105
Leu	Arg	Asp	Trp	Glu	Leu	Gln	Val	His	Phe	Lys	Ile	His	Gly	Gln
				110					115					120
Gly	Lys	Lys	Asn	Leu	His	Gly	Asp	Gly	Leu	Ala	Ile	Trp	Tyr	Thr
				125					130					135
Lys	Asp	Arg	Met	Gln	Pro	Gly	Pro	Val	Phe	Gly	Asn	Met	Asp	Lys
				140					145					150
Phe	Val	Gly	Leu	Gly	Val	Phe	Val	Asp	Thr	Tyr	Pro	Asn	Glu	Glu
				155					160					165
Lys	Gln	Gln	Glu	Arg	Val	Phe	Pro	Tyr	Ile	Ser	Ala	Met	Val	Asn
				170					175					180
Asn	Gly	Ser	Leu	Ser	Tyr	Asp	His	Glu	Arg	Asp	Gly	Arg	Pro	Thr
				185					190					195
Glu	Leu	Gly	Gly	Cys	Thr	Ala	Ile	Val	Arg	Asn	Leu	His	Tyr	Asp
				200					205					210
Thr	Phe	Leu	Val	Ile	Arg	Tyr	Val	Lys	Arg	His	Leu	Thr	Ile	Met
				215					220					225
Met	Asp	Ile	Asp	Gly	Lys	His	Glu	Trp	Arg	Asp	Cys	Ile	Glu	Val
				230					235					240
Pro	Gly	Val	Arg	Leu	Pro	Arg	Gly	Tyr	Tyr	Phe	Gly	Thr	Ser	Ser
				245					250					255

Ile	Thr	Gly	Asp	Leu	Ser	Asp	Asn	His	Asp	Val	Ile	Ser	Leu	Lys
				260					265					270
Leu	Phe	Glu	Leu	Thr	Val	Glu	Arg	Thr	Pro	Glu	Glu	Glu	Lys	Leu
				275					280					285
His	Arg	Asp	Val	Phe	Leu	Pro	Ser	Val	Asp	Asn	Met	Lys	Leu	Pro
				290					295					300
Glu	Met	Thr	Ala	Pro	Leu	Pro	Pro	Leu	Ser	Gly	Leu	Ala	Leu	Phe
				305					310					315
Leu	Ile	Val	Phe	Phe	Ser	Leu	Val	Phe	Ser	Val	Phe	Ala	Ile	Val
				320					325					330
Ile	Gly	Ile	Ile	Leu	Tyr	Asn	Lys	Trp	Gln	Glu	Gln	Ser	Arg	Lys
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Arg Phe Tyr

<210> 381
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 381
 ccttgggtcg tggcagcagt gg 22

<210> 382
 <211> 24
 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 382
 cactctccag gctgcatgct cagg 24

<210> 383
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 383
 gtcaaactgtt cgagtacttg aaacgggagc actcgctgtc gaagc 45

<210> 384
 <211> 3150
 <212> DNA
 <213> Homo sapiens

<400> 384

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<210> 385

<211> 480

<212> PRT

<213> Homo sapiens

<400> 385

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				20					25					30
Pro	Val	Ser	Thr	Pro	Lys	Asn	Gly	Met	Ser	Ser	Lys	Ser	Arg	Lys
				35					40					45
Arg	Ile	Met	Pro	Asp	Pro	Val	Thr	Glu	Pro	Pro	Val	Thr	Asp	Pro
				50					55					60
Val	Tyr	Glu	Ala	Leu	Leu	Tyr	Cys	Asn	Ile	Pro	Ser	Val	Ala	Glu
				65					70					75
Arg	Ser	Met	Glu	Gly	His	Ala	Pro	His	His	Phe	Lys	Leu	Val	Ser
				80					85					90
Val	His	Val	Phe	Ile	Arg	His	Gly	Asp	Arg	Tyr	Pro	Leu	Tyr	Val
				95					100					105
Ile	Pro	Lys	Thr	Lys	Arg	Pro	Glu	Ile	Asp	Cys	Thr	Leu	Val	Ala
				110					115					120
Asn	Arg	Lys	Pro	Tyr	His	Pro	Lys	Leu	Glu	Ala	Phe	Ile	Ser	His
				125					130					135
Met	Ser	Lys	Gly	Ser	Gly	Ala	Ser	Phe	Glu	Ser	Pro	Leu	Asn	Ser
				140					145					150
Leu	Pro	Leu	Tyr	Pro	Asn	His	Pro	Leu	Cys	Glu	Met	Gly	Glu	Leu
				155					160					165
Thr	Gln	Thr	Gly	Val	Val	Gln	His	Leu	Gln	Asn	Gly	Gln	Leu	Leu
				170					175					180
Arg	Asp	Ile	Tyr	Leu	Lys	Lys	His	Lys	Leu	Leu	Pro	Asn	Asp	Trp
				185					190					195
Ser	Ala	Asp	Gln	Leu	Tyr	Leu	Glu	Thr	Thr	Gly	Lys	Ser	Arg	Thr
				200					205					210

Leu	Gln	Ser	Gly	Leu	Ala	Leu	Leu	Tyr	Gly	Phe	Leu	Pro	Asp	Phe	
				215					220					225	
Asp	Trp	Lys	Lys	Ile	Tyr	Phe	Arg	His	Gln	Pro	Ser	Ala	Leu	Phe	
				230					235					240	
Cys	Ser	Gly	Ser	Cys	Tyr	Cys	Pro	Val	Arg	Asn	Gln	Tyr	Leu	Glu	
				245					250					255	
Lys	Glu	Gln	Arg	Arg	Gln	Tyr	Leu	Leu	Arg	Leu	Lys	Asn	Ser	Gln	
				260					265					270	
Leu	Glu	Lys	Thr	Tyr	Gly	Glu	Met	Ala	Lys	Ile	Val	Asp	Val	Pro	
				275					280					285	
Thr	Lys	Gln	Leu	Arg	Ala	Ala	Asn	Pro	Ile	Asp	Ser	Met	Leu	Cys	
				290					295					300	
His	Phe	Cys	His	Asn	Val	Ser	Phe	Pro	Cys	Thr	Arg	Asn	Gly	Cys	
				305					310					315	
Val	Asp	Met	Glu	His	Phe	Lys	Val	Ile	Lys	Thr	His	Gln	Ile	Glu	
				320					325					330	
Asp	Glu	Arg	Glu	Arg	Arg	Glu	Lys	Lys	Leu	Tyr	Phe	Gly	Tyr	Ser	
				335					340					345	
Leu	Leu	Gly	Ala	His	Pro	Ile	Leu	Asn	Gln	Thr	Ile	Gly	Arg	Met	
				350					355					360	
Gln	Arg	Ala	Thr	Glu	Gly	Arg	Lys	Glu	Glu	Leu	Phe	Ala	Leu	Tyr	
				365					370					375	
Ser	Ala	His	Asp	Val	Thr	Leu	Ser	Pro	Val	Leu	Ser	Ala	Leu	Gly	
				380					385					390	
Leu	Ser	Glu	Ala	Arg	Phe	Pro	Arg	Phe	Ala	Ala	Arg	Leu	Ile	Phe	
				395					400					405	
Glu	Leu	Trp	Gln	Asp	Arg	Glu	Lys	Pro	Ser	Glu	His	Ser	Val	Arg	
				410					415					420	
Ile	Leu	Tyr	Asn	Gly	Val	Asp	Val	Thr	Phe	His	Thr	Ser	Phe	Cys	
				425					430					435	
Gln	Asp	His	His	Lys	Arg	Ser	Pro	Lys	Pro	Met	Cys	Pro	Leu	Glu	
				440					445					450	
Asn	Leu	Val	Arg	Phe	Val	Lys	Arg	Asp	Met	Phe	Val	Ala	Leu	Gly	
				455					460					465	
Gly	Ser	Gly	Thr	Asn	Tyr	Tyr	Asp	Ala	Cys	His	Arg	Glu	Gly	Phe	
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<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 386
ccaagcagct tagagctcca gacc 24

<210> 387
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 387
ttccctatgc tctgtattgg catgg 25

<210> 388
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 388
gccacttctg ccacaatgtc agctttccct gtaccagaaa tggctgtggt 50

<210> 389
<211> 3313
<212> DNA
<213> Homo sapiens

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gccgctgttc accaatcggg gagagaaaag cggagatcct gctcgccttg 200
cacgcgcctg aagcacaaaag cagatagcta ggaatgaacc atccctggga 250
gtatgtggaa acaacggagg agctctgact tcccaactgt cccattctat 300
gggcgaagga actgctcctg acttcagtgg ttaagggcag aattgaaaat 350
aattctggag gaagataaga atgattcctg cgcgactgca ccgggactac 400
aaagggcttg tcctgctggg aatcctcctg gggactctgt gggagaccgg 450
atgcaccag atacgtatt cagttccgga agagctggag aaaggctcta 500
gggtgggcga catctccagg gacctggggc tggagccccg ggagctcgcg 550
gagcgcggag tccgcatcat cccagaggt aggacgcagc ttttcgccct 600

gaatccgcgc agcggcagct tggtcacggc gggcaggata gaccgggagg 650
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 aaaatgcagc cactgagatg cggttccctc taccacacgc ctgggatccg 850
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 cttctccctc atcgtgcaaa atggagccga cggtagtaag taccgccaat 950
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 catccgcgtg atggttcttg atgcgaacga caacgcacca gcgtttgctc 1100
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aaactctatc tca 3313

<210> 390
<211> 916
<212> PRT
<213> Homo sapiens

<400> 390

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Leu	Gly	Ile	Leu	Leu	Gly	Thr	Leu	Trp	Glu	Thr	Gly	Cys	Thr	Gln	
				20					25					30	
Ile	Arg	Tyr	Ser	Val	Pro	Glu	Glu	Leu	Glu	Lys	Gly	Ser	Arg	Val	
				35					40					45	
Gly	Asp	Ile	Ser	Arg	Asp	Leu	Gly	Leu	Glu	Pro	Arg	Glu	Leu	Ala	
				50					55					60	
Glu	Arg	Gly	Val	Arg	Ile	Ile	Pro	Arg	Gly	Arg	Thr	Gln	Leu	Phe	
				65					70					75	
Ala	Leu	Asn	Pro	Arg	Ser	Gly	Ser	Leu	Val	Thr	Ala	Gly	Arg	Ile	
				80					85					90	
Asp	Arg	Glu	Glu	Leu	Cys	Met	Gly	Ala	Ile	Lys	Cys	Gln	Leu	Asn	
				95					100					105	
Leu	Asp	Ile	Leu	Met	Glu	Asp	Lys	Val	Lys	Ile	Tyr	Gly	Val	Glu	
				110					115					120	
Val	Glu	Val	Arg	Asp	Ile	Asn	Asp	Asn	Ala	Pro	Tyr	Phe	Arg	Glu	
				125					130					135	
Ser	Glu	Leu	Glu	Ile	Lys	Ile	Ser	Glu	Asn	Ala	Ala	Thr	Glu	Met	
				140					145					150	
Arg	Phe	Pro	Leu	Pro	His	Ala	Trp	Asp	Pro	Asp	Ile	Gly	Lys	Asn	
				155					160					165	
Ser	Leu	Gln	Ser	Tyr	Glu	Leu	Ser	Pro	Asn	Thr	His	Phe	Ser	Leu	
				170					175					180	
Ile	Val	Gln	Asn	Gly	Ala	Asp	Gly	Ser	Lys	Tyr	Pro	Glu	Leu	Val	
				185					190					195	
Leu	Lys	Arg	Ala	Leu	Asp	Arg	Glu	Glu	Lys	Ala	Ala	His	His	Leu	
				200					205					210	
Val	Leu	Thr	Ala	Ser	Asp	Gly	Gly	Asp	Pro	Val	Arg	Thr	Gly	Thr	
				215					220					225	
Ala	Arg	Ile	Arg	Val	Met	Val	Leu	Asp	Ala	Asn	Asp	Asn	Ala	Pro	
				230					235					240	
Ala	Phe	Ala	Gln	Pro	Glu	Tyr	Arg	Ala	Ser	Val	Pro	Glu	Asn	Leu	
				245					250					255	
Ala	Leu	Gly	Thr	Gln	Leu	Leu	Val	Val	Asn	Ala	Thr	Asp	Pro	Asp	
				260					265					270	
Glu	Gly	Val	Asn	Ala	Glu	Val	Arg	Tyr	Ser	Phe	Arg	Tyr	Val	Asp	
				275					280					285	
Asp	Lys	Ala	Ala	Gln	Val	Phe	Lys	Leu	Asp	Cys	Asn	Ser	Gly	Thr	

				290						295					300
Ile	Ser	Thr	Ile	Gly	Glu	Leu	Asp	His	Glu	Glu	Ser	Gly	Phe	Tyr	
				305					310					315	
Gln	Met	Glu	Val	Gln	Ala	Met	Asp	Asn	Ala	Gly	Tyr	Ser	Ala	Arg	
				320					325					330	
Ala	Lys	Val	Leu	Ile	Thr	Val	Leu	Asp	Val	Asn	Asp	Asn	Ala	Pro	
				335					340					345	
Glu	Val	Val	Leu	Thr	Ser	Leu	Ala	Ser	Ser	Val	Pro	Glu	Asn	Ser	
				350					355					360	
Pro	Arg	Gly	Thr	Leu	Ile	Ala	Leu	Leu	Asn	Val	Asn	Asp	Gln	Asp	
				365					370					375	
Ser	Glu	Glu	Asn	Gly	Gln	Val	Ile	Cys	Phe	Ile	Gln	Gly	Asn	Leu	
				380					385					390	
Pro	Phe	Lys	Leu	Glu	Lys	Ser	Tyr	Gly	Asn	Tyr	Tyr	Ser	Leu	Val	
				395					400					405	
Thr	Asp	Ile	Val	Leu	Asp	Arg	Glu	Gln	Val	Pro	Ser	Tyr	Asn	Ile	
				410					415					420	
Thr	Val	Thr	Ala	Thr	Asp	Arg	Gly	Thr	Pro	Pro	Leu	Ser	Thr	Glu	
				425					430					435	
Thr	His	Ile	Ser	Leu	Asn	Val	Ala	Asp	Thr	Asn	Asp	Asn	Pro	Pro	
				440					445					450	
Val	Phe	Pro	Gln	Ala	Ser	Tyr	Ser	Ala	Tyr	Ile	Pro	Glu	Asn	Asn	
				455					460					465	
Pro	Arg	Gly	Val	Ser	Leu	Val	Ser	Val	Thr	Ala	His	Asp	Pro	Asp	
				470					475					480	
Cys	Glu	Glu	Asn	Ala	Gln	Ile	Thr	Tyr	Ser	Leu	Ala	Glu	Asn	Thr	
				485					490					495	
Ile	Gln	Gly	Ala	Ser	Leu	Ser	Ser	Tyr	Val	Ser	Ile	Asn	Ser	Asp	
				500					505					510	
Thr	Gly	Val	Leu	Tyr	Ala	Leu	Ser	Ser	Phe	Asp	Tyr	Glu	Gln	Phe	
				515					520					525	
Arg	Asp	Leu	Gln	Val	Lys	Val	Met	Ala	Arg	Asp	Asn	Gly	His	Pro	
				530					535					540	
Pro	Leu	Ser	Ser	Asn	Val	Ser	Leu	Ser	Leu	Phe	Val	Leu	Asp	Gln	
				545					550					555	
Asn	Asp	Asn	Ala	Pro	Glu	Ile	Leu	Tyr	Pro	Ala	Leu	Pro	Thr	Asp	
				560					565					570	
Gly	Ser	Thr	Gly	Val	Glu	Leu	Ala	Pro	Arg	Ser	Ala	Glu	Pro	Gly	
				575					580					585	

Tyr	Leu	Val	Thr	Lys	Val	Val	Ala	Val	Asp	Arg	Asp	Ser	Gly	Gln	590	595	600
Asn	Ala	Trp	Leu	Ser	Tyr	Arg	Leu	Leu	Lys	Ala	Ser	Glu	Pro	Gly	605	610	615
Leu	Phe	Ser	Val	Gly	Leu	His	Thr	Gly	Glu	Val	Arg	Thr	Ala	Arg	620	625	630
Ala	Leu	Leu	Asp	Arg	Asp	Ala	Leu	Lys	Gln	Ser	Leu	Val	Val	Ala	635	640	645
Val	Gln	Asp	His	Gly	Gln	Pro	Pro	Leu	Ser	Ala	Thr	Val	Thr	Leu	650	655	660
Thr	Val	Ala	Val	Ala	Asp	Ser	Ile	Pro	Gln	Val	Leu	Ala	Asp	Leu	665	670	675
Gly	Ser	Leu	Glu	Ser	Pro	Ala	Asn	Ser	Glu	Thr	Ser	Asp	Leu	Thr	680	685	690
Leu	Tyr	Leu	Val	Val	Ala	Val	Ala	Ala	Val	Ser	Cys	Val	Phe	Leu	695	700	705
Ala	Phe	Val	Ile	Leu	Leu	Leu	Ala	Leu	Arg	Leu	Arg	Arg	Trp	His	710	715	720
Lys	Ser	Arg	Leu	Leu	Gln	Ala	Ser	Gly	Gly	Gly	Leu	Thr	Gly	Ala	725	730	735
Pro	Ala	Ser	His	Phe	Val	Gly	Val	Asp	Gly	Val	Gln	Ala	Phe	Leu	740	745	750
Gln	Thr	Tyr	Ser	His	Glu	Val	Ser	Leu	Thr	Thr	Asp	Ser	Arg	Lys	755	760	765
Ser	His	Leu	Ile	Phe	Pro	Gln	Pro	Asn	Tyr	Ala	Asp	Met	Leu	Val	770	775	780
Ser	Gln	Glu	Ser	Phe	Glu	Lys	Ser	Glu	Pro	Leu	Leu	Leu	Ser	Gly	785	790	795
Asp	Ser	Val	Phe	Ser	Lys	Asp	Ser	His	Gly	Leu	Ile	Glu	Val	Ser	800	805	810
Leu	Tyr	Gln	Ile	Phe	Phe	Leu	Phe	Phe	Phe	Asn	Cys	Ser	Val	Ser	815	820	825
Gln	Ala	Gly	Val	Gln	Arg	Tyr	Asp	His	Ser	Ser	Leu	Arg	Pro	Gln	830	835	840
Thr	Pro	Arg	Leu	Lys	Gln	Leu	Ser	His	Leu	Cys	Leu	Arg	Cys	Asn	845	850	855
Arg	Asp	Tyr	Arg	Cys	Lys	Pro	Pro	Thr	Val	Cys	Leu	Ser	Ile	Tyr	860	865	870
Leu	Ser	Ile	Tyr	Leu	Ser	Ile	Tyr	Leu	Ser	Ile	Tyr	Leu	Leu	Leu			

	875		880		885
Ser Cys Thr Asp	Gly Ser Leu Thr Pro	Val Ile Pro Val Leu Trp			
	890	895			900
Glu Ala Glu Ala	Gly Gly Ser Pro Glu	Val Gly Ser Leu Arg Pro			
	905	910			915

Ala

<210> 391

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 391

tccgtctctg tgaaccgccc cac 23

<210> 392

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 392

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<210> 393

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 393

ccgactgtga aagagaacgc cccagatcca cttgttcccc 40

<210> 394

<211> 999

<212> DNA

<213> Homo sapiens

<400> 394

cccaggctct agtgcaggag gagaaggagg aggagcagga ggtggagatt 50

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ggggcctcct cactggggtc cgaatcagta ggtgaccccg cccctggatt 150

ctggaagacc tcaccatggg acgccccga cctcgtgcgg ccaagacgtg 200

gatgttcctg ctcttgctgg ggggagcctg ggcaggacac tccagggcac 250
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 tggcaggcgg ccttggtcca gggccagcaa ctactctgtg gcggtgtcct 350
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<210> 395

<211> 260

<212> PRT

<213> Homo sapiens

<400> 395

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			20						25					30
Asp	Lys	Val	Leu	Gly	Gly	His	Glu	Cys	Gln	Pro	His	Ser	Gln	Pro
				35					40					45
Trp	Gln	Ala	Ala	Leu	Phe	Gln	Gly	Gln	Gln	Leu	Leu	Cys	Gly	Gly
				50					55					60
Val	Leu	Val	Gly	Gly	Asn	Trp	Val	Leu	Thr	Ala	Ala	His	Cys	Lys
				65					70					75
Lys	Pro	Lys	Tyr	Thr	Val	Arg	Leu	Gly	Asp	His	Ser	Leu	Gln	Asn
				80					85					90
Lys	Asp	Gly	Pro	Glu	Gln	Glu	Ile	Pro	Val	Val	Gln	Ser	Ile	Pro
				95					100					105

His	Pro	Cys	Tyr	Asn	Ser	Ser	Asp	Val	Glu	Asp	His	Asn	His	Asp
				110					115					120
Leu	Met	Leu	Leu	Gln	Leu	Arg	Asp	Gln	Ala	Ser	Leu	Gly	Ser	Lys
				125					130					135
Val	Lys	Pro	Ile	Ser	Leu	Ala	Asp	His	Cys	Thr	Gln	Pro	Gly	Gln
				140					145					150
Lys	Cys	Thr	Val	Ser	Gly	Trp	Gly	Thr	Val	Thr	Ser	Pro	Arg	Glu
				155					160					165
Asn	Phe	Pro	Asp	Thr	Leu	Asn	Cys	Ala	Glu	Val	Lys	Ile	Phe	Pro
				170					175					180
Gln	Lys	Lys	Cys	Glu	Asp	Ala	Tyr	Pro	Gly	Gln	Ile	Thr	Asp	Gly
				185					190					195
Met	Val	Cys	Ala	Gly	Ser	Ser	Lys	Gly	Ala	Asp	Thr	Cys	Gln	Gly
				200					205					210
Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Asp	Gly	Ala	Leu	Gln	Gly	Ile
				215					220					225
Thr	Ser	Trp	Gly	Ser	Asp	Pro	Cys	Gly	Arg	Ser	Asp	Lys	Pro	Gly
				230					235					240
Val	Tyr	Thr	Asn	Ile	Cys	Arg	Tyr	Leu	Asp	Trp	Ile	Lys	Lys	Ile
				245					250					255
Ile	Gly	Ser	Lys	Gly										
				260										

<210> 396

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 396

cagcctacag aataaagatg gccc 24

<210> 397

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 397

ggtgcaatga tctgccaggc tgat 24

<210> 398

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 398

agaaatacct gtggttcagt ccatcccaaa cccctgctac aacagcag 48

<210> 399

<211> 2236

<212> DNA

<213> Homo sapiens

<400> 399

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gccccggccc gccgcgccgc ccacgcccc accccggccc gcgcccccta 100
gccccgccc gggccgcgc ccgcgcccgc gccaggtga gcgctccgc 150
cgccgcgagg ccccgcccc gccgcccccc gcccgcccc ggccggcggg 200
ggaaccgggc ggattcctcg cgcgtcaaac cacctgatcc cataaaacat 250
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gccgcctcgc ccctgtgcgc cctgcgcgcc ctgcgcaccc gcggcccag 350
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 ttacaggggt cggcggcagc gtttgttcca gaacgccgc tcccaccag 2150
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<210> 400

<211> 473

<212> PRT

<213> Homo sapiens

<400> 400

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Leu	Trp	Leu	Gln	Ala	Trp	Gln	Val	Ala	Ala	Pro	Cys	Pro	Gly	Ala
			20					25					30	

	320		325		330
Gly Leu Pro Lys Cys Cys Gln Pro Asp	Ala Ala Asp Lys Ala Ser				
335	340				345
Val Leu Glu Pro Gly Arg Pro Ala Ser	Ala Gly Asn Ala Leu Lys				
350	355				360
Gly Arg Val Pro Pro Gly Asp Ser Pro	Pro Gly Asn Gly Ser Gly				
365	370				375
Pro Arg His Ile Asn Asp Ser Pro Phe	Gly Thr Leu Pro Gly Ser				
380	385				390
Ala Glu Pro Pro Leu Thr Ala Val Arg	Pro Glu Gly Ser Glu Pro				
395	400				405
Pro Gly Phe Pro Thr Ser Gly Pro Arg	Arg Arg Pro Gly Cys Ser				
410	415				420
Arg Lys Asn Arg Thr Arg Ser His Cys	Arg Leu Gly Gln Ala Gly				
425	430				435
Ser Gly Gly Gly Gly Thr Gly Asp Ser	Glu Gly Ser Gly Ala Leu				
440	445				450
Pro Ser Leu Thr Cys Ser Leu Thr Pro	Leu Gly Leu Ala Leu Val				
455	460				465
Leu Trp Thr Val Leu Gly Pro Cys					
470					

<210> 401
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 401
 tggctgccct gcagtacctc tacc 24

 <210> 402
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 402
 ccctgcaggt cattggcagc tagg 24

 <210> 403
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 403
aggcactgcc tgatgacacc ttccgogacc tgggcaacct cacac 45

<210> 404
<211> 2738
<212> DNA
<213> Homo sapiens

<400> 404
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agctgaatcc agcaagaaca atggaggcca gcgggaagct catttgca 200
caaaggcaag tccttttttc ctttctcctt ttgggcttat ctctggcggg 250
cgcggcggaa cctagaagct attctgtggt ggaggaaact gagggcagct 300
cctttgtcac caatttagca aaggacctgg gtctggagca gagggaattc 350
tccaggcggg gggttagggt tgtttccaga ggaacaaac tacatttgca 400
gctcaatcag gagaccgcgg atttggtgct aaatgagaaa ttggaccgtg 450
aggatctgtg cggtcacaca gagccctgtg tgctacgttt ccaagtgttg 500
ctagagagtc ctttcgagtt ttttcaagct gagctgcaag taatagacat 550
aaacgaccac tctccagtat ttctggacaa acaaagtgtg gtgaaagtat 600
cagagagcag tcctcctggg actacgtttc ctctgaagaa tgccgaagac 650
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ggttcaatat tcagtgacca tagttgactt ttacattcca taggtatttt 2600

attttgtggc atttccatgc caatgtttat ttcccccaat ttgtgtgtat 2650
gtaatatgtg acggatttac tcttgatttt tctcatgttc tttctccctt 2700
tgttttaaag tgaacattta cctttattcc tggttctt 2738

<210> 405
<211> 798
<212> PRT
<213> Homo sapiens

<400> 405
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Phe Ser Phe Leu Leu Leu Gly Leu Ser Leu Ala Gly Ala Ala Glu
20 25 30
Pro Arg Ser Tyr Ser Val Val Glu Glu Thr Glu Gly Ser Ser Phe
35 40 45
Val Thr Asn Leu Ala Lys Asp Leu Gly Leu Glu Gln Arg Glu Phe
50 55 60
Ser Arg Arg Gly Val Arg Val Val Ser Arg Gly Asn Lys Leu His
65 70 75
Leu Gln Leu Asn Gln Glu Thr Ala Asp Leu Leu Leu Asn Glu Lys
80 85 90
Leu Asp Arg Glu Asp Leu Cys Gly His Thr Glu Pro Cys Val Leu
95 100 105
Arg Phe Gln Val Leu Leu Glu Ser Pro Phe Glu Phe Phe Gln Ala
110 115 120
Glu Leu Gln Val Ile Asp Ile Asn Asp His Ser Pro Val Phe Leu
125 130 135
Asp Lys Gln Met Leu Val Lys Val Ser Glu Ser Ser Pro Pro Gly
140 145 150
Thr Thr Phe Pro Leu Lys Asn Ala Glu Asp Leu Asp Val Gly Gln
155 160 165
Asn Asn Ile Glu Asn Tyr Ile Ile Ser Pro Asn Ser Tyr Phe Arg
170 175 180
Val Leu Thr Arg Lys Arg Ser Asp Gly Arg Lys Tyr Pro Glu Leu
185 190 195
Val Leu Asp Lys Ala Leu Asp Arg Glu Glu Glu Ala Glu Leu Arg
200 205 210
Leu Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Pro Arg Ser Gly
215 220 225
Thr Ala Gln Val Tyr Ile Glu Val Leu Asp Val Asn Asp Asn Ala

Gly	Phe	Gln	Phe	Arg	Val	Gly	Ala	Ser	Asp	His	Gly	Ser	Pro	Ala	
				530					535					540	
Leu	Ser	Ser	Glu	Ala	Leu	Val	Arg	Val	Val	Val	Leu	Asp	Ala	Asn	
				545					550					555	
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala	
				560					565					570	
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu	
				575					580					585	
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala	
				590					595					600	
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Leu	Gly	Leu	Phe	
				605					610					615	
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu	
				620					625					630	
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys	
				635					640					645	
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Val	
				650					655					660	
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu	
				665					670					675	
Ala	Ala	Pro	Thr	Gln	Ala	Gln	Ala	Asp	Leu	Leu	Thr	Val	Tyr	Leu	
				680					685					690	
Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Phe	Ser	Val	
				695					700					705	
Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg	Ala	Ala	
				710					715					720	
Ser	Val	Gly	Arg	Cys	Leu	Val	Pro	Glu	Gly	Pro	Leu	Pro	Gly	His	
				725					730					735	
Leu	Val	Asp	Met	Ser	Gly	Thr	Arg	Thr	Leu	Ser	Gln	Ser	Tyr	Gln	
				740					745					750	
Tyr	Glu	Val	Cys	Leu	Ala	Gly	Gly	Ser	Gly	Thr	Asn	Glu	Phe	Lys	
				755					760					765	
Phe	Leu	Lys	Pro	Ile	Ile	Pro	Asn	Phe	Pro	Pro	Gln	Cys	Pro	Gly	
				770					775					780	
Lys	Glu	Ile	Gln	Gly	Asn	Ser	Thr	Phe	Pro	Asn	Asn	Phe	Gly	Phe	
				785					790					795	
Asn	Ile	Gln													

<210> 406

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 406
ctgagaacgc gcctgaaact gtg 23

<210> 407
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 407
agcgttgtca ttgacatcgg cg 22

<210> 408
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 408
ttagttgctc cattcaggag gatctaccct tcctcctgaa atccgcggaa 50

<210> 409
<211> 1379
<212> DNA
<213> Homo sapiens

<400> 409
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gcgtagccgt gcgccgattg cctctcggcc tgggcaatgg tcccggctgc 100
cggtcgacga ccgccccgcg tcatgcggct cctcggctgg tggcaagtat 150
tgctgtgggt gctgggactt cccgtccgcg gcgtggaggt tgcagaggaa 200
agtggtcgct tatggtcaga ggagcagcct gctcaccctc tccaggtggg 250
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acagggcagc agaagaggcc aatgcggtgc tggggctgga cacccaaggc 350
gatcacatgg tgatgctgtc tgtgattcct ggggaagctg aggacaaagt 400
gagttcagag cctagcggcg tcacctgtgg tgctggagga gcggaggact 450
caaggtgcaa cgtccgagag agccttttct ctctggatgg cgctggagca 500

cacttccctg acagagaaga ggagtattac acagagccag aagtggcgga 550
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agtgacgtgt tgacttgaaa cttcaggcag attaaaagaa tcatttgttg 1300
aacaactgaa tgtataaaaa aattataaac tgggtgttta actagtattg 1350
caataagcaa atgcaaaaat attcaatag 1379

<210> 410
<211> 360
<212> PRT
<213> Homo sapiens

<400> 410
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Leu Gly Trp Trp Gln Val Leu Leu Trp Val Leu Gly Leu Pro Val
20 25 30
Arg Gly Val Glu Val Ala Glu Glu Ser Gly Arg Leu Trp Ser Glu
35 40 45
Glu Gln Pro Ala His Pro Leu Gln Val Gly Ala Val Tyr Leu Gly
50 55 60
Glu Glu Glu Leu Leu His Asp Pro Met Gly Gln Asp Arg Ala Ala
65 70 75
Glu Glu Ala Asn Ala Val Leu Gly Leu Asp Thr Gln Gly Asp His

	80	85	90
Met Val Met Leu Ser Val Ile Pro Gly	Glu Ala Glu Asp Lys Val		
95	100	105	
Ser Ser Glu Pro Ser Gly Val Thr Cys	Gly Ala Gly Gly Ala Glu		
110	115	120	
Asp Ser Arg Cys Asn Val Arg Glu Ser	Leu Phe Ser Leu Asp Gly		
125	130	135	
Ala Gly Ala His Phe Pro Asp Arg Glu	Glu Glu Tyr Tyr Thr Glu		
140	145	150	
Pro Glu Val Ala Glu Ser Asp Ala Ala	Pro Thr Glu Asp Ser Asn		
155	160	165	
Asn Thr Glu Ser Leu Lys Ser Pro Lys	Val Asn Cys Glu Glu Arg		
170	175	180	
Asn Ile Thr Gly Leu Glu Asn Phe Thr	Leu Lys Ile Leu Asn Met		
185	190	195	
Ser Gln Asp Leu Met Asp Phe Leu Asn	Pro Asn Gly Ser Asp Cys		
200	205	210	
Thr Leu Val Leu Phe Tyr Thr Pro Trp	Cys Arg Phe Ser Ala Ser		
215	220	225	
Leu Ala Pro His Phe Asn Ser Leu Pro	Arg Ala Phe Pro Ala Leu		
230	235	240	
His Phe Leu Ala Leu Asp Ala Ser Gln	His Ser Ser Leu Ser Thr		
245	250	255	
Arg Phe Gly Thr Val Ala Val Pro Asn	Ile Leu Leu Phe Gln Gly		
260	265	270	
Ala Lys Pro Met Ala Arg Phe Asn His	Thr Asp Arg Thr Leu Glu		
275	280	285	
Thr Leu Lys Ile Phe Ile Phe Asn Gln	Thr Gly Ile Glu Ala Lys		
290	295	300	
Lys Asn Val Val Val Thr Gln Ala Asp	Gln Ile Gly Pro Leu Pro		
305	310	315	
Ser Thr Leu Ile Lys Ser Val Asp Trp	Leu Leu Val Phe Ser Leu		
320	325	330	
Phe Phe Leu Ile Ser Phe Ile Met Tyr	Ala Thr Ile Arg Thr Glu		
335	340	345	
Ser Ile Arg Trp Leu Ile Pro Gly Gln	Glu Gln Glu His Val Glu		
350	355	360	

<210> 411

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 411
cacagagcca gaagtggcgg aatc 24

<210> 412
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 412
ccacatgttc ctgctcttgc cctgg 25

<210> 413
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 413
cggtagtgac tgtactctag tctgtttta caccocgtgg tgccg 45

<210> 414
<211> 1196
<212> DNA
<213> Homo sapiens

<400> 414
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agggccctgg ctgcgtgctg ctgctcttcc tcgcctcgca ctgctgcctg 100
ggctcggcgc gcgggctctt cctctttggc cagcccgact tctcctacaa 150
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gaatcttgta gaaatattca aactaataaa atcatgaata ttttaa 1196

<210> 415

<211> 295

<212> PRT

<213> Homo sapiens

<400> 415

Met	Leu	Gln	Gly	Pro	Gly	Ser	Leu	Leu	Leu	Leu	Phe	Leu	Ala	Ser	1	5	10	15
His	Cys	Cys	Leu	Gly	Ser	Ala	Arg	Gly	Leu	Phe	Leu	Phe	Gly	Gln	20	25	30	
Pro	Asp	Phe	Ser	Tyr	Lys	Arg	Ser	Asn	Cys	Lys	Pro	Ile	Pro	Val	35	40	45	
Asn	Leu	Gln	Leu	Cys	His	Gly	Ile	Glu	Tyr	Gln	Asn	Met	Arg	Leu	50	55	60	
Pro	Asn	Leu	Leu	Gly	His	Glu	Thr	Met	Lys	Glu	Val	Leu	Glu	Gln	65	70	75	
Ala	Gly	Ala	Trp	Ile	Pro	Leu	Val	Met	Lys	Gln	Cys	His	Pro	Asp	80	85	90	
Thr	Lys	Lys	Phe	Leu	Cys	Ser	Leu	Phe	Ala	Pro	Val	Cys	Leu	Asp	95	100	105	
Asp	Leu	Asp	Glu	Thr	Ile	Gln	Pro	Cys	His	Ser	Leu	Cys	Val	Gln	110	115	120	
Val	Lys	Asp	Arg	Cys	Ala	Pro	Val	Met	Ser	Ala	Phe	Gly	Phe	Pro	125	130	135	

Trp	Pro	Asp	Met	Leu	Glu	Cys	Asp	Arg	Phe	Pro	Gln	Asp	Asn	Asp	
				140					145					150	
Leu	Cys	Ile	Pro	Leu	Ala	Ser	Ser	Asp	His	Leu	Leu	Pro	Ala	Thr	
				155					160					165	
Glu	Glu	Ala	Pro	Lys	Val	Cys	Glu	Ala	Cys	Lys	Asn	Lys	Asn	Asp	
				170					175					180	
Asp	Asp	Asn	Asp	Ile	Met	Glu	Thr	Leu	Cys	Lys	Asn	Asp	Phe	Ala	
				185					190					195	
Leu	Lys	Ile	Lys	Val	Lys	Glu	Ile	Thr	Tyr	Ile	Asn	Arg	Asp	Thr	
				200					205					210	
Lys	Ile	Ile	Leu	Glu	Thr	Lys	Ser	Lys	Thr	Ile	Tyr	Lys	Leu	Asn	
				215					220					225	
Gly	Val	Ser	Glu	Arg	Asp	Leu	Lys	Lys	Ser	Val	Leu	Trp	Leu	Lys	
				230					235					240	
Asp	Ser	Leu	Gln	Cys	Thr	Cys	Glu	Glu	Met	Asn	Asp	Ile	Asn	Ala	
				245					250					255	
Pro	Tyr	Leu	Val	Met	Gly	Gln	Lys	Gln	Gly	Gly	Glu	Leu	Val	Ile	
				260					265					270	
Thr	Ser	Val	Lys	Arg	Trp	Gln	Lys	Gly	Gln	Arg	Glu	Phe	Lys	Arg	
				275					280					285	
Ile	Ser	Arg	Ser	Ile	Arg	Lys	Leu	Gln	Cys						
				290					295						

<210> 416

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 416

cctggctcgc tgctgctgct c 21

<210> 417

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 417

cctcacaggt gcactgcaag ctgtc 25

<210> 418

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 418

ctcttctctt ttggccagcc cgacttctcc tacaagcgca gaattgc 47

<210> 419

<211> 1830

<212> DNA

<213> Homo sapiens

<400> 419

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cgctgggtgt tcctgctcgc gatcagcctg ctcaactgct ocaacgccac 150
gctgtggctc agctttgcac ctgtggctga cgtcattgct gaggacttgg 200
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<210> 420

<211> 560

<212> PRT

<213> Homo sapiens

<400> 420

Met	Ala	Gly	Pro	Thr	Glu	Ala	Glu	Thr	Gly	Leu	Ala	Glu	Pro	Arg
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Ala	Leu	Cys	Ala	Gln	Arg	Gly	His	Arg	Thr	Tyr	Ala	Arg	Arg	Trp
				20					25					30
Val	Phe	Leu	Leu	Ala	Ile	Ser	Leu	Leu	Asn	Cys	Ser	Asn	Ala	Thr
				35					40					45
Leu	Trp	Leu	Ser	Phe	Ala	Pro	Val	Ala	Asp	Val	Ile	Ala	Glu	Asp
				50					55					60
Leu	Val	Leu	Ser	Met	Glu	Gln	Ile	Asn	Trp	Leu	Ser	Leu	Val	Tyr
				65					70					75
Leu	Val	Val	Ser	Thr	Pro	Phe	Gly	Val	Ala	Ala	Ile	Trp	Ile	Leu
				80					85					90
Asp	Ser	Val	Gly	Leu	Arg	Ala	Ala	Thr	Ile	Leu	Gly	Ala	Trp	Leu
				95					100					105
Asn	Phe	Ala	Gly	Ser	Val	Leu	Arg	Met	Val	Pro	Cys	Met	Val	Val

	110		115		120
Gly Thr Gln Asn	Pro Phe Ala Phe Leu	Met Gly Gly Gln Ser Leu			
	125	130			135
Cys Ala Leu Ala	Gln Ser Leu Val Ile	Phe Ser Pro Ala Lys Leu			
	140	145			150
Ala Ala Leu Trp	Phe Pro Glu His Gln	Arg Ala Thr Ala Asn Met			
	155	160			165
Leu Ala Thr Met	Ser Asn Pro Leu Gly	Val Leu Val Ala Asn Val			
	170	175			180
Leu Ser Pro Val	Leu Val Lys Lys Gly	Glu Asp Ile Pro Leu Met			
	185	190			195
Leu Gly Val Tyr	Thr Ile Pro Ala Gly	Val Val Cys Leu Leu Ser			
	200	205			210
Thr Ile Cys Leu	Trp Glu Ser Val Pro	Pro Thr Pro Pro Ser Ala			
	215	220			225
Gly Ala Ala Ser	Ser Thr Ser Glu Lys	Phe Leu Asp Gly Leu Lys			
	230	235			240
Leu Gln Leu Met	Trp Asn Lys Ala Tyr	Val Ile Leu Ala Val Cys			
	245	250			255
Leu Gly Gly Met	Ile Gly Ile Ser Ala	Ser Phe Ser Ala Leu Leu			
	260	265			270
Glu Gln Ile Leu	Cys Ala Ser Gly His	Ser Ser Gly Phe Ser Gly			
	275	280			285
Leu Cys Gly Ala	Leu Phe Ile Thr Phe	Gly Ile Leu Gly Ala Leu			
	290	295			300
Ala Leu Gly Pro	Tyr Val Asp Arg Thr	Lys His Phe Thr Glu Ala			
	305	310			315
Thr Lys Ile Gly	Leu Cys Leu Phe Ser	Leu Ala Cys Val Pro Phe			
	320	325			330
Ala Leu Val Ser	Gln Leu Gln Gly Gln	Thr Leu Ala Leu Ala Ala			
	335	340			345
Thr Cys Ser Leu	Leu Gly Leu Phe Gly	Phe Ser Val Gly Pro Val			
	350	355			360
Ala Met Glu Leu	Ala Val Glu Cys Ser	Phe Pro Val Gly Glu Gly			
	365	370			375
Ala Ala Thr Gly	Met Ile Phe Val Leu	Gly Gln Ala Glu Gly Ile			
	380	385			390
Leu Ile Met Leu	Ala Met Thr Ala Leu	Thr Val Arg Arg Ser Glu			
	395	400			405

Pro	Ser	Leu	Ser	Thr	Cys	Gln	Gln	Gly	Glu	Asp	Pro	Leu	Asp	Trp
				410					415					420
Thr	Val	Ser	Leu	Leu	Leu	Met	Ala	Gly	Leu	Cys	Thr	Phe	Phe	Ser
				425					430					435
Cys	Ile	Leu	Ala	Val	Phe	Phe	His	Thr	Pro	Tyr	Arg	Arg	Leu	Gln
				440					445					450
Ala	Glu	Ser	Gly	Glu	Pro	Pro	Ser	Thr	Arg	Asn	Ala	Val	Gly	Gly
				455					460					465
Ala	Asp	Ser	Gly	Pro	Gly	Val	Asp	Arg	Gly	Gly	Ala	Gly	Arg	Ala
				470					475					480
Gly	Val	Leu	Gly	Pro	Ser	Thr	Ala	Thr	Pro	Glu	Cys	Thr	Ala	Arg
				485					490					495
Gly	Ala	Ser	Leu	Glu	Asp	Pro	Arg	Gly	Pro	Gly	Ser	Pro	His	Pro
				500					505					510
Ala	Cys	His	Arg	Ala	Thr	Pro	Arg	Ala	Gln	Gly	Pro	Ala	Ala	Thr
				515					520					525
Asp	Ala	Pro	Ser	Arg	Pro	Gly	Arg	Leu	Ala	Gly	Arg	Val	Gln	Ala
				530					535					540
Ser	Arg	Phe	Ile	Asp	Pro	Ala	Gly	Ser	His	Ser	Ser	Phe	Ser	Ser
				545					550					555
Pro	Trp	Val	Ile	Thr										
				560										

<210> 421

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 421

agcttctcag ccctcctgga gcag 24

<210> 422

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 422

cgggtcaata aacctggacg cttgg 25

<210> 423

<211> 43

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 423

tatgtggacc ggaccaagca cttcactgag gccaccaaga ttg 43

<210> 424

<211> 4313

<212> DNA

<213> Homo sapiens

<400> 424

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tggcaattct tgatcggcgt ttggacatct cagatcgctt ccaatgaaga 150
tggccttgcc ttggggtcct gcttgtttca taatcatcta actatgggac 200
aaggttgtgc cggcagctct gggggaagga gcacggggct gatcaagcca 250
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 aaaaaaaaaa aaa 4313

<210> 425

<211> 1184

<212> PRT

<213> Homo sapiens

<400> 425

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Gly	Tyr	Leu	Phe	Leu	Leu	Gly	Asp	Cys	Gln	Glu	Val	Thr	Thr	Leu
				20					25					30
Thr	Val	Lys	Tyr	Gln	Val	Ser	Glu	Glu	Val	Pro	Ser	Gly	Thr	Val
				35					40					45
Ile	Gly	Lys	Leu	Ser	Gln	Glu	Leu	Gly	Arg	Glu	Glu	Arg	Arg	Arg
				50					55					60
Gln	Ala	Gly	Ala	Ala	Phe	Gln	Val	Leu	Gln	Leu	Pro	Gln	Ala	Leu
				65					70					75
Pro	Ile	Gln	Val	Asp	Ser	Glu	Glu	Gly	Leu	Leu	Ser	Thr	Gly	Arg
				80					85					90
Arg	Leu	Asp	Arg	Glu	Gln	Leu	Cys	Arg	Gln	Trp	Asp	Pro	Cys	Leu
				95					100					105
Val	Ser	Phe	Asp	Val	Leu	Ala	Thr	Gly	Asp	Leu	Ala	Leu	Ile	His
				110					115					120
Val	Glu	Ile	Gln	Val	Leu	Asp	Ile	Asn	Asp	His	Gln	Pro	Arg	Phe
				125					130					135
Pro	Lys	Gly	Glu	Gln	Glu	Leu	Glu	Ile	Ser	Glu	Ser	Ala	Ser	Leu
				140					145					150
Arg	Thr	Arg	Ile	Pro	Leu	Asp	Arg	Ala	Leu	Asp	Pro	Asp	Thr	Gly
				155					160					165
Pro	Asn	Thr	Leu	His	Thr	Tyr	Thr	Leu	Ser	Pro	Ser	Glu	His	Phe
				170					175					180
Ala	Leu	Asp	Val	Ile	Val	Gly	Pro	Asp	Glu	Thr	Lys	His	Ala	Glu
				185					190					195

Leu	Ile	Val	Val	Lys	Glu	Leu	Asp	Arg	Glu	Ile	His	Ser	Phe	Phe	200	205	210
Asp	Leu	Val	Leu	Thr	Ala	Tyr	Asp	Asn	Gly	Asn	Pro	Pro	Lys	Ser	215	220	225
Gly	Thr	Ser	Leu	Val	Lys	Val	Asn	Val	Leu	Asp	Ser	Asn	Asp	Asn	230	235	240
Ser	Pro	Ala	Phe	Ala	Glu	Ser	Ser	Leu	Ala	Leu	Glu	Ile	Gln	Glu	245	250	255
Asp	Ala	Ala	Pro	Gly	Thr	Leu	Leu	Ile	Lys	Leu	Thr	Ala	Thr	Asp	260	265	270
Pro	Asp	Gln	Gly	Pro	Asn	Gly	Glu	Val	Glu	Phe	Phe	Leu	Ser	Lys	275	280	285
His	Met	Pro	Pro	Glu	Val	Leu	Asp	Thr	Phe	Ser	Ile	Asp	Ala	Lys	290	295	300
Thr	Gly	Gln	Val	Ile	Leu	Arg	Arg	Pro	Leu	Asp	Tyr	Glu	Lys	Asn	305	310	315
Pro	Ala	Tyr	Glu	Val	Asp	Val	Gln	Ala	Arg	Asp	Leu	Gly	Pro	Asn	320	325	330
Pro	Ile	Pro	Ala	His	Cys	Lys	Val	Leu	Ile	Lys	Val	Leu	Asp	Val	335	340	345
Asn	Asp	Asn	Ile	Pro	Ser	Ile	His	Val	Thr	Trp	Ala	Ser	Gln	Pro	350	355	360
Ser	Leu	Val	Ser	Glu	Ala	Leu	Pro	Lys	Asp	Ser	Phe	Ile	Ala	Leu	365	370	375
Val	Met	Ala	Asp	Asp	Leu	Asp	Ser	Gly	His	Asn	Gly	Leu	Val	His	380	385	390
Cys	Trp	Leu	Ser	Gln	Glu	Leu	Gly	His	Phe	Arg	Leu	Lys	Arg	Thr	395	400	405
Asn	Gly	Asn	Thr	Tyr	Met	Leu	Leu	Thr	Asn	Ala	Thr	Leu	Asp	Arg	410	415	420
Glu	Gln	Trp	Pro	Lys	Tyr	Thr	Leu	Thr	Leu	Leu	Ala	Gln	Asp	Gln	425	430	435
Gly	Leu	Gln	Pro	Leu	Ser	Ala	Lys	Lys	Gln	Leu	Ser	Ile	Gln	Ile	440	445	450
Ser	Asp	Ile	Asn	Asp	Asn	Ala	Pro	Val	Phe	Glu	Lys	Ser	Arg	Tyr	455	460	465
Glu	Val	Ser	Thr	Arg	Glu	Asn	Asn	Leu	Pro	Ser	Leu	His	Leu	Ile	470	475	480
Thr	Ile	Lys	Ala	His	Asp	Ala	Asp	Leu	Gly	Ile	Asn	Gly	Lys	Val			

				485					490					495
Ser	Tyr	Arg	Ile	Gln 500	Asp	Ser	Pro	Val	Ala 505	His	Leu	Val	Ala	Ile 510
Asp	Ser	Asn	Thr	Gly 515	Glu	Val	Thr	Ala	Gln 520	Arg	Ser	Leu	Asn	Tyr 525
Glu	Glu	Met	Ala	Gly 530	Phe	Glu	Phe	Gln	Val 535	Ile	Ala	Glu	Asp	Ser 540
Gly	Gln	Pro	Met	Leu 545	Ala	Ser	Ser	Val	Ser 550	Val	Trp	Val	Ser	Leu 555
Leu	Asp	Ala	Asn	Asp 560	Asn	Ala	Pro	Glu	Val 565	Val	Gln	Pro	Val	Leu 570
Ser	Asp	Gly	Lys	Ala 575	Ser	Leu	Ser	Val	Leu 580	Val	Asn	Ala	Ser	Thr 585
Gly	His	Leu	Leu	Val 590	Pro	Ile	Glu	Thr	Pro 595	Asn	Gly	Leu	Gly	Pro 600
Ala	Gly	Thr	Asp	Thr 605	Pro	Pro	Leu	Ala	Thr 610	His	Ser	Ser	Arg	Pro 615
Phe	Leu	Leu	Thr	Thr 620	Ile	Val	Ala	Arg	Asp 625	Ala	Asp	Ser	Gly	Ala 630
Asn	Gly	Glu	Pro	Leu 635	Tyr	Ser	Ile	Arg	Asn 640	Gly	Asn	Glu	Ala	His 645
Leu	Phe	Ile	Leu	Asn 650	Pro	His	Thr	Gly	Gln 655	Leu	Phe	Val	Asn	Val 660
Thr	Asn	Ala	Ser	Ser 665	Leu	Ile	Gly	Ser	Glu 670	Trp	Glu	Leu	Glu	Ile 675
Val	Val	Glu	Asp	Gln 680	Gly	Ser	Pro	Pro	Leu 685	Gln	Thr	Arg	Ala	Leu 690
Leu	Arg	Val	Met	Phe 695	Val	Thr	Ser	Val	Asp 700	His	Leu	Arg	Asp	Ser 705
Ala	Arg	Lys	Pro	Gly 710	Ala	Leu	Ser	Met	Ser 715	Met	Leu	Thr	Val	Ile 720
Cys	Leu	Ala	Val	Leu 725	Leu	Gly	Ile	Phe	Gly 730	Leu	Ile	Leu	Ala	Leu 735
Phe	Met	Ser	Ile	Cys 740	Arg	Thr	Glu	Lys	Lys 745	Asp	Asn	Arg	Ala	Tyr 750
Asn	Cys	Arg	Glu	Ala 755	Glu	Ser	Thr	Tyr	Arg 760	Gln	Gln	Pro	Lys	Arg 765
Pro	Gln	Lys	His	Ile 770	Gln	Lys	Ala	Asp	Ile 775	His	Leu	Val	Pro	Val 780

Leu	Arg	Gly	Gln	Ala	Gly	Glu	Pro	Cys	Glu	Val	Gly	Gln	Ser	His
				785					790					795
Lys	Asp	Val	Asp	Lys	Glu	Ala	Met	Met	Glu	Ala	Gly	Trp	Asp	Pro
				800					805					810
Cys	Leu	Gln	Ala	Pro	Phe	His	Leu	Thr	Pro	Thr	Leu	Tyr	Arg	Thr
				815					820					825
Leu	Arg	Asn	Gln	Gly	Asn	Gln	Gly	Ala	Pro	Ala	Glu	Ser	Arg	Glu
				830					835					840
Val	Leu	Gln	Asp	Thr	Val	Asn	Leu	Leu	Phe	Asn	His	Pro	Arg	Gln
				845					850					855
Arg	Asn	Ala	Ser	Arg	Glu	Asn	Leu	Asn	Leu	Pro	Glu	Pro	Gln	Pro
				860					865					870
Ala	Thr	Gly	Gln	Pro	Arg	Ser	Arg	Pro	Leu	Lys	Val	Ala	Gly	Ser
				875					880					885
Pro	Thr	Gly	Arg	Leu	Ala	Gly	Asp	Gln	Gly	Ser	Glu	Glu	Ala	Pro
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Gln	Arg	Pro	Pro	Ala	Ser	Ser	Ala	Thr	Leu	Arg	Arg	Gln	Arg	His
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Leu	Asn	Gly	Lys	Val	Ser	Pro	Glu	Lys	Glu	Ser	Gly	Pro	Arg	Gln
				920					925					930
Ile	Leu	Arg	Ser	Leu	Val	Arg	Leu	Ser	Val	Ala	Ala	Phe	Ala	Glu
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Arg	Asn	Pro	Val	Glu	Glu	Leu	Thr	Val	Asp	Ser	Pro	Pro	Val	Gln
				950					955					960
Gln	Ile	Ser	Gln	Leu	Leu	Ser	Leu	Leu	His	Gln	Gly	Gln	Phe	Gln
				965					970					975
Pro	Lys	Pro	Asn	His	Arg	Gly	Asn	Lys	Tyr	Leu	Ala	Lys	Pro	Gly
				980					985					990
Gly	Ser	Arg	Ser	Ala	Ile	Pro	Asp	Thr	Asp	Gly	Pro	Ser	Ala	Arg
				995					1000					1005
Ala	Gly	Gly	Gln	Thr	Asp	Pro	Glu	Gln	Glu	Glu	Gly	Pro	Leu	Asp
				1010					1015					1020
Pro	Glu	Glu	Asp	Leu	Ser	Val	Lys	Gln	Leu	Leu	Glu	Glu	Glu	Leu
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Ser	Ser	Leu	Leu	Asp	Pro	Ser	Thr	Gly	Leu	Ala	Leu	Asp	Arg	Leu
				1040					1045					1050
Ser	Ala	Pro	Asp	Pro	Ala	Trp	Met	Ala	Arg	Leu	Ser	Leu	Pro	Leu
				1055					1060					1065
Thr	Thr	Asn	Tyr	Arg	Asp	Asn	Val	Ile	Ser	Pro	Asp	Ala	Ala	Ala

1070	1075	1080
Thr Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Ala Glu Ala		
1085	1090	1095
Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val		
1100	1105	1110
Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Glu Gln Arg Ser		
1115	1120	1125
Ser Met Pro Val Glu Ala Ala Ser Glu Ala Leu Arg Arg Leu Ser		
1130	1135	1140
Val Cys Gly Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Ala Ala		
1145	1150	1155
Ser Gly Met Lys Val Gln Gly Asp Pro Gly Gly Lys Thr Gly Thr		
1160	1165	1170
Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser Ser Arg Cys Leu		
1175	1180	

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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 428
 <211> 50
 <212> DNA
 <213> Artificial Sequence

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<400> 428
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<210> 429
 <211> 2037

<212> DNA
<213> Homo sapiens

<400> 429

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ggcctcgggg agtgggaagt ggaggcagga gccttcctta cacttcgcca 150
tgagtttcct catcgactcc agcatcatga ttacctcca gatactat 200
tttggaattg ggtggctttt cttcatgcgc caattgttta aagactatga 250
gatacgtcag tatgttgtag aggtgatctt ctccgtgacg ttgcat 300
cttgacccat gtttgagctc atcatctttg aaatcttagg agtattgaat 350
agcagctccc gttat 400
gatcctgggtt ttcattgggc ctttttacat tggctat 450
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<210> 430

<211> 455

<212> PRT

<213> Homo sapiens

<400> 430

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Leu	Phe	Phe	Gly	Phe	Gly	Trp	Leu	Phe	Phe	Met	Arg	Gln	Leu	Phe
			20						25					30
Lys	Asp	Tyr	Glu	Ile	Arg	Gln	Tyr	Val	Val	Gln	Val	Ile	Phe	Ser
			35						40					45
Val	Thr	Phe	Ala	Phe	Ser	Cys	Thr	Met	Phe	Glu	Leu	Ile	Ile	Phe
			50						55					60
Glu	Ile	Leu	Gly	Val	Leu	Asn	Ser	Ser	Ser	Arg	Tyr	Phe	His	Trp
			65						70					75
Lys	Met	Asn	Leu	Cys	Val	Ile	Leu	Leu	Ile	Leu	Val	Phe	Met	Val
			80						85					90
Pro	Phe	Tyr	Ile	Gly	Tyr	Phe	Ile	Val	Ser	Asn	Ile	Arg	Leu	Leu
			95						100					105
His	Lys	Gln	Arg	Leu	Leu	Phe	Ser	Cys	Leu	Leu	Trp	Leu	Thr	Phe
			110						115					120

	410		415		420
Phe Tyr His Arg Trp Phe Asp Val Ile Phe Leu Val Ser Ala Leu					
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Ser Ser Ile Leu Phe Leu Tyr Leu Ala His Lys Gln Ala Pro Glu					
	440		445		450
Lys Gln Met Ala Pro					
	455				

<210> 431
 <211> 407
 <212> DNA
 <213> Homo sapiens
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 <221> unsure
 <222> 78, 81, 113, 157, 224, 297
 <223> unknown base

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 ttgtacnggt gatcttctcc gtgacgtttg ccatttcttg caccatgttt 200
 gagctcatca tctttgaaat cttnngagta ttgaatagca gctcccgtta 250
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 tgggtgccttt ttacattggc tattttattg tgagcaatat ccgactactg 350
 cataaacaac gactgctttt ttctgtcttc ttatggctga cctttatgta 400
 tttccag 407

<210> 432
 <211> 457
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 31, 66, 81-82, 84, 122, 184, 187, 232, 241, 400, 424, 427, 434
 <223> unknown base

<400> 432
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 ctatgagata cgtcagtatg ttgtacaggt gatnttntcc gtgacgtttg 200

cattttcttg caccatgttt gagtcatca tntttgaaat nttaggagta 250
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 tgagcaatat ccgactactg cataaacaac gactgctttt ttctgtctn 400
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 cattctc 457

<210> 433

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 433

aagtggagcc ggagccttcc 20

<210> 434

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 434

tcgttgttta tgcagtagtc gg 22

<210> 435

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 435

attgtttaaa gactatgaga tacgtcagta tgtttgtacag g 41

<210> 436

<211> 3951

<212> DNA

<213> Homo sapiens

<400> 436

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ttctcacggg ctgtgcctt caatctggac gtgatgggtg ccttgcgcaa 150

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 a 3951

<210> 437

<211> 1141

<212> PRT

<213> Homo sapiens

<400> 437

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				20					25					30

Ala	Val	Ala	Phe	Asn	Leu	Asp	Val	Met	Gly	Ala	Leu	Arg	Lys	Glu
				35					40					45

Gly	Glu	Pro	Gly	Ser	Leu	Phe	Gly	Phe	Ser	Val	Ala	Leu	His	Arg
				50					55					60

Gln	Leu	Gln	Pro	Arg	Pro	Gln	Ser	Trp	Leu	Leu	Val	Gly	Ala	Pro
				65					70					75

Gln	Ala	Leu	Ala	Leu	Pro	Gly	Gln	Gln	Ala	Asn	Arg	Thr	Gly	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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Leu Phe Ala Cys	Pro Leu Ser Leu Glu	Glu Thr Asp Cys Tyr Arg	
	95	100	105
Val Asp Ile Asp	Gln Gly Ala Asp Met	Gln Lys Glu Ser Lys Glu	
	110	115	120
Asn Gln Trp Leu	Gly Val Ser Val Arg	Ser Gln Gly Pro Gly Gly	
	125	130	135
Lys Ile Val Thr	Cys Ala His Arg Tyr	Glu Ala Arg Gln Arg Val	
	140	145	150
Asp Gln Ile Leu	Glu Thr Arg Asp Met	Ile Gly Arg Cys Phe Val	
	155	160	165
Leu Ser Gln Asp	Leu Ala Ile Arg Asp	Glu Leu Asp Gly Gly Glu	
	170	175	180
Trp Lys Phe Cys	Glu Gly Arg Pro Gln	Gly His Glu Gln Phe Gly	
	185	190	195
Phe Cys Gln Gln	Gly Thr Ala Ala Ala	Phe Ser Pro Asp Ser His	
	200	205	210
Tyr Leu Leu Phe	Gly Ala Pro Gly Thr	Tyr Asn Trp Lys Gly Thr	
	215	220	225
Ala Arg Val Glu	Leu Cys Ala Gln Gly	Ser Ala Asp Leu Ala His	
	230	235	240
Leu Asp Asp Gly	Pro Tyr Glu Ala Gly	Gly Glu Lys Glu Gln Asp	
	245	250	255
Pro Arg Leu Ile	Pro Val Pro Ala Asn	Ser Tyr Phe Gly Phe Ser	
	260	265	270
Ile Asp Ser Gly	Lys Gly Leu Val Arg	Ala Glu Glu Leu Ser Phe	
	275	280	285
Val Ala Gly Ala	Pro Arg Ala Asn His	Lys Gly Ala Val Val Ile	
	290	295	300
Leu Arg Lys Asp	Ser Ala Ser Arg Leu	Val Pro Glu Val Met Leu	
	305	310	315
Ser Gly Glu Arg	Leu Thr Ser Gly Phe	Gly Tyr Ser Leu Ala Val	
	320	325	330
Ala Asp Leu Asn	Ser Asp Gly Trp Pro	Asp Leu Ile Val Gly Ala	
	335	340	345
Pro Tyr Phe Phe	Glu Arg Gln Glu Glu	Leu Gly Gly Ala Val Tyr	
	350	355	360
Val Tyr Leu Asn	Gln Gly Gly His Trp	Ala Gly Ile Ser Pro Leu	
	365	370	375

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Gly Thr Thr Ala	Leu Phe Ala Leu Ser	Gly Gln Pro Val Ile	Gly		
	680		685		690
Leu Glu Leu Met	Val Thr Asn Leu Pro	Ser Asp Pro Ala Gln	Pro		
	695		700		705
Gln Ala Asp Gly	Asp Asp Ala His Glu	Ala Gln Leu Leu Val	Met		
	710		715		720
Leu Pro Asp Ser	Leu His Tyr Ser Gly	Val Arg Ala Leu Asp	Pro		
	725		730		735
Ala Glu Lys Pro	Leu Cys Leu Ser Asn	Glu Asn Ala Ser His	Val		
	740		745		750
Glu Cys Glu Leu	Gly Asn Pro Met Lys	Arg Gly Ala Gln Val	Thr		
	755		760		765
Phe Tyr Leu Ile	Leu Ser Thr Ser Gly	Ile Ser Ile Glu Thr	Thr		
	770		775		780
Glu Leu Glu Val	Glu Leu Leu Leu Ala	Thr Ile Ser Glu Gln	Glu		
	785		790		795
Leu His Pro Val	Ser Ala Arg Ala Arg	Val Phe Ile Glu Leu	Pro		
	800		805		810
Leu Ser Ile Ala	Gly Met Ala Ile Pro	Gln Gln Leu Phe Phe	Ser		
	815		820		825
Gly Val Val Arg	Gly Glu Arg Ala Met	Gln Ser Glu Arg Asp	Val		
	830		835		840
Gly Ser Lys Val	Lys Tyr Glu Val Thr	Val Ser Asn Gln Gly	Gln		
	845		850		855
Ser Leu Arg Thr	Leu Gly Ser Ala Phe	Leu Asn Ile Met Trp	Pro		
	860		865		870
His Glu Ile Ala	Asn Gly Lys Trp Leu	Leu Tyr Pro Met Gln	Val		
	875		880		885
Glu Leu Glu Gly	Gly Gln Gly Pro Gly	Gln Lys Gly Leu Cys	Ser		
	890		895		900
Pro Arg Pro Asn	Ile Leu His Leu Asp	Val Asp Ser Arg Asp	Arg		
	905		910		915
Arg Arg Arg Glu	Leu Glu Pro Pro Glu	Gln Gln Glu Pro Gly	Glu		
	920		925		930
Arg Gln Glu Pro	Ser Met Ser Trp Trp	Pro Val Ser Ser Ala	Glu		
	935		940		945
Lys Lys Lys Asn	Ile Thr Leu Asp Cys	Ala Arg Gly Thr Ala	Asn		
	950		955		960

Cys	Val	Val	Phe	Ser	Cys	Pro	Leu	Tyr	Ser	Phe	Asp	Arg	Ala	Ala	
				965					970					975	
Val	Leu	His	Val	Trp	Gly	Arg	Leu	Trp	Asn	Ser	Thr	Phe	Leu	Glu	
				980					985					990	
Glu	Tyr	Ser	Ala	Val	Lys	Ser	Leu	Glu	Val	Ile	Val	Arg	Ala	Asn	
				995					1000					1005	
Ile	Thr	Val	Lys	Ser	Ser	Ile	Lys	Asn	Leu	Met	Leu	Arg	Asp	Ala	
				1010					1015					1020	
Ser	Thr	Val	Ile	Pro	Val	Met	Val	Tyr	Leu	Asp	Pro	Met	Ala	Val	
				1025					1030					1035	
Val	Ala	Glu	Gly	Val	Pro	Trp	Trp	Val	Ile	Leu	Leu	Ala	Val	Leu	
				1040					1045					1050	
Ala	Gly	Leu	Leu	Val	Leu	Ala	Leu	Leu	Val	Leu	Leu	Leu	Trp	Lys	
				1055					1060					1065	
Met	Gly	Phe	Phe	Lys	Arg	Ala	Lys	His	Pro	Glu	Ala	Thr	Val	Pro	
				1070					1075					1080	
Gln	Tyr	His	Ala	Val	Lys	Ile	Pro	Arg	Glu	Asp	Arg	Gln	Gln	Phe	
				1085					1090					1095	
Lys	Glu	Glu	Lys	Thr	Gly	Thr	Ile	Leu	Arg	Asn	Asn	Trp	Gly	Ser	
				1100					1105					1110	
Pro	Arg	Arg	Glu	Gly	Pro	Asp	Ala	His	Pro	Ile	Leu	Ala	Ala	Asp	
				1115					1120					1125	
Gly	His	Pro	Glu	Leu	Gly	Pro	Asp	Gly	His	Pro	Gly	Pro	Gly	Thr	
				1130					1135					1140	

Ala

<210> 438

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 438

ggctgacacc gcagtgtctt tcag 24

<210> 439

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 439
gctgctgggg actgcaatgt agct 24

<210> 440

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 440

catcctccat gtctcccatg aggtctctat tgctccacga agcatc 46

<210> 441

<211> 1964

<212> DNA

<213> Homo sapiens

<400> 441

cgcgccgggc gcagggagct gagtggacgg ctcgagacgg cggcgcgtgc 50
agcagctcca gaaagcagcg agttggcaga gcagggctgc atttccagca 100
ggagctgcga gcacagtgtt ggctcacaac aagatgctca aggtgtcagc 150
cgtactgtgt gtgtgtgcag ccgcttggtg cagtcagtct ctcgcagctg 200
ccgcggcggg ggctgcagcc ggggggcggg cggacggcgg taattttctg 250
gatgataaac aatggctcac cacaatctct cagtatgaca aggaagtcgg 300
acagtgaac aaattccgag acgaagtaga ggatgattat ttccgcactt 350
ggagtccagg aaaacccttc gatcaggctt tagatccagc taaggatcca 400
tgcttaaaga tgaaatgtag tcgccataaa gtatgcattg ctcaagattc 450
tcagactgca gtctgcatta gtcaccggag gcttacacac aggatgaaag 500
aagcaggagt agaccatagg cagtggaggg gtcccatatt atccacctgc 550
aagcagtgcc cagtgggtcta tcccagccct gtttgtggtt cagatggtca 600
tacctactct tttcagtgc aactagaata tcaggcatgt gtcttaggaa 650
aacagatctc agtcaaagt gaaggacatt gcccatgtcc ttcagataag 700
cccaccagta caagcagaaa tgtaagaga gcatgcagtg acctggagtt 750
cagggaagtg gcaaacagat tgcgggactg gttcaaggcc cttcatgaaa 800
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gtttaacaga cttgatacaa actatgacct gctattggac cagtcagagc 950

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caaatgaca gctagtgtt gggatcgtac atgttaattt tttgaaagat 1800
aattotaagt gaaattttaa ataaataaat ttttaatgac ctgggtctta 1850
aggatttagg aaaaatatgc atgctttaat tgcatttcca aagtagcatc 1900
ttgctagacc tagatgagtc aggataacag agagatacca catgactcca 1950
aaaaaaaaaa aaaa 1964

<210> 442
<211> 436
<212> PRT
<213> Homo sapiens

<400> 442
Met Leu Lys Val Ser Ala Val Leu Cys Val Cys Ala Ala Ala Trp
1 5 10 15
Cys Ser Gln Ser Leu Ala Ala Ala Ala Val Ala Ala Ala Gly
20 25 30
Gly Arg Ser Asp Gly Gly Asn Phe Leu Asp Asp Lys Gln Trp Leu
35 40 45
Thr Thr Ile Ser Gln Tyr Asp Lys Glu Val Gly Gln Trp Asn Lys

Tyr	Tyr	Lys	Pro	Thr	Gln	Cys	His	Gly	Ser	Val	Gly	Gln	Cys	Trp
				350					355					360
Cys	Val	Asp	Arg	Tyr	Gly	Asn	Glu	Val	Met	Gly	Ser	Arg	Ile	Asn
				365					370					375
Gly	Val	Ala	Asp	Cys	Ala	Ile	Asp	Phe	Glu	Ile	Ser	Gly	Asp	Phe
				380					385					390
Ala	Ser	Gly	Asp	Phe	His	Glu	Trp	Thr	Asp	Asp	Glu	Asp	Asp	Glu
				395					400					405
Asp	Asp	Ile	Met	Asn	Asp	Glu	Asp	Glu	Ile	Glu	Asp	Asp	Asp	Glu
				410					415					420
Asp	Glu	Gly	Asp	Asp	Asp	Asp	Gly	Gly	Asp	Asp	His	Asp	Val	Tyr
				425					430					435

Ile

<210> 443
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 443
 cagcaatatt cagaagcggc aaggg 25

<210> 444
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 444
 catcatggtc atcaccacca tcatcatc 28

<210> 445
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 445
 ggttactaca agccaacaca atgtcatggc agtggtggac agtgctgg 48

<210> 446
 <211> 3617
 <212> DNA
 <213> Homo sapiens

<400> 446

cagactccag atttccctgt caaccacgag gagtccagag aggaaacgcg 50
gagcggagac aacagtacct gacgcctctt tcagcccggg atcgccccag 100
cagggatggg cgacaagatc tggctgccct tccccgtgct ctttctggcc 150
gctctgcctc cggctgctgt gcctggggcg gccggcttca caccttcctt 200
cgatagcgac ttcaccttta cccttcccgc cggccagaag gagtgttctt 250
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gatggagcag gattagatat tgatttccat cttgcctctc cagaaggcaa 350
aaccttagtt tttgaacaaa gaaaatcaga tggagtccac actgtagaga 400
ctgaagttag tgattacatg ttctgtttg acaatacatt cagcaccatt 450
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ggcacaagaa caagaagatt ggaagaaata tattactggc acagatatat 550
tggatatgaa actggaagac atcctggaat ccatcaacag catcaagtcc 600
agactaagca aaagtgggca catacaaatt ctgcttagag catttgaagc 650
tcgtgatcga aacatacaag aaagcaactt tgatagagtc aatttctggg 700
ctatggttaa tttagtggtc atgggtgggg tgtcagccat tcaagtttat 750
atgctgaaga gtctgtttga agataagagg aaaagtagaa cttaaaactc 800
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 tacaacaaag tttctgccat ctagcttttt gaagtctatg ggggtcttac 2250
 tcaagtacta gtaatttaac ttcatcatga atgaactata atttttaagt 2300
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 gtacaataat gcacaatcag tgttgctcaa actgctttat acttataaac 3550
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 aaattatcaa aggaaaaa 3617

<210> 447

<211> 229

<212> PRT

<213> Homo sapiens

<400> 447

Met	Gly	Asp	Lys	Ile	Trp	Leu	Pro	Phe	Pro	Val	Leu	Leu	Leu	Ala
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Ala	Leu	Pro	Pro	Val	Leu	Leu	Pro	Gly	Ala	Ala	Gly	Phe	Thr	Pro
				20					25					30
Ser	Leu	Asp	Ser	Asp	Phe	Thr	Phe	Thr	Leu	Pro	Ala	Gly	Gln	Lys
				35					40					45
Glu	Cys	Phe	Tyr	Gln	Pro	Met	Pro	Leu	Lys	Ala	Ser	Leu	Glu	Ile
				50					55					60
Glu	Tyr	Gln	Val	Leu	Asp	Gly	Ala	Gly	Leu	Asp	Ile	Asp	Phe	His
				65					70					75
Leu	Ala	Ser	Pro	Glu	Gly	Lys	Thr	Leu	Val	Phe	Glu	Gln	Arg	Lys
				80					85					90
Ser	Asp	Gly	Val	His	Thr	Val	Glu	Thr	Glu	Val	Gly	Asp	Tyr	Met
				95					100					105
Phe	Cys	Phe	Asp	Asn	Thr	Phe	Ser	Thr	Ile	Ser	Glu	Lys	Val	Ile

	110	115	120
Phe Phe Glu Leu	Ile Leu Asp Asn Met	Gly Glu Gln Ala Gln	Glu
	125	130	135
Gln Glu Asp Trp	Lys Lys Tyr Ile Thr	Gly Thr Asp Ile Leu	Asp
	140	145	150
Met Lys Leu Glu	Asp Ile Leu Glu Ser	Ile Asn Ser Ile Lys	Ser
	155	160	165
Arg Leu Ser Lys	Ser Gly His Ile Gln	Ile Leu Leu Arg Ala	Phe
	170	175	180
Glu Ala Arg Asp	Arg Asn Ile Gln Glu	Ser Asn Phe Asp Arg	Val
	185	190	195
Asn Phe Trp Ser	Met Val Asn Leu Val	Val Met Val Val Val	Ser
	200	205	210
Ala Ile Gln Val	Tyr Met Leu Lys Ser	Leu Phe Glu Asp Lys	Arg
	215	220	225

Lys Ser Arg Thr

<210> 448

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 448

cccagcaggg ctgggcgaca aga 23

<210> 449

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 449

gtcttccagt ttcatatcca ata 23

<210> 450

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 450

ccagaaggag cacggggaag ggcagccaga tcttgtcgcc cat 43

<210> 451
 <211> 859
 <212> DNA
 <213> Homo sapiens

<400> 451
 ccatccctga gatcttttta taaaaaaccc agtctttgct gaccagacaa 50
 agcataccag atctcaccag agagtcgcag acactatgct gcctcccatg 100
 gccctgcccc gtgtgtcctg gatgtgtgctt tcctgcctca ttctcctgtg 150
 tcaggttcaa ggtgaagaaa ccagaagga actgccctct ccacggatca 200
 gctgtcccaa aggctccaag gcctatggct cccctgcta tgccttggtt 250
 ttgtcaccaa aatcctggat ggatgcagat ctgggttgcc agaagcggcc 300
 ctctggaaaa ctggtgtctg tgctcagtgg ggctgagggg tccttcgtgt 350
 cctccctggg gaggagcatt agtaacagct actcatacat ctggattggg 400
 ctccatgacc ccacacaggg ctctgagcct gatggagatg gatgggagtg 450
 gagtagcaat gatgtgatga attactttgc atgggagaaa aatccctcca 500
 ccatcttaaa cctggccac tgtgggagcc tgtcaagaag cacaggattt 550
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 gagatctcag agaataataa taaaaatgtt actttataaa aaaaaaaaaa 850
 aaaaaaaaaa 859

<210> 452
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 452
 Met Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu
 1 5 10 15
 Ser Cys Leu Ile Leu Leu Cys Gln Val Gln Gly Glu Glu Thr Gln
 20 25 30
 Lys Glu Leu Pro Ser Pro Arg Ile Ser Cys Pro Lys Gly Ser Lys
 35 40 45
 Ala Tyr Gly Ser Pro Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser

	50		55		60
Trp Met Asp Ala Asp Leu Ala Cys Gln Lys Arg Pro Ser Gly Lys					
	65		70		75
Leu Val Ser Val Leu Ser Gly Ala Glu Gly Ser Phe Val Ser Ser					
	80		85		90
Leu Val Arg Ser Ile Ser Asn Ser Tyr Ser Tyr Ile Trp Ile Gly					
	95		100		105
Leu His Asp Pro Thr Gln Gly Ser Glu Pro Asp Gly Asp Gly Trp					
	110		115		120
Glu Trp Ser Ser Thr Asp Val Met Asn Tyr Phe Ala Trp Glu Lys					
	125		130		135
Asn Pro Ser Thr Ile Leu Asn Pro Gly His Cys Gly Ser Leu Ser					
	140		145		150
Arg Ser Thr Gly Phe Leu Lys Trp Lys Asp Tyr Asn Cys Asp Ala					
	155		160		165
Lys Leu Pro Tyr Val Cys Lys Phe Lys Asp					
	170		175		

<210> 453
 <211> 550
 <212> DNA
 <213> Homo sapiens

<400> 453
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 ggcgctcctg gcgctggtgc tggctgcctg cggagagctg ggcgcggccc 150
 tgcgctgcta cgtctgtccg gagccacag gagtgtcgga ctgtgtcacc 200
 atcgccacct gcaccaccaa cgaaaccatg tgcaagacca cactctactc 250
 cggggagata gtgtaccctt tccaggggga ctccacggtg accaagtcct 300
 gtgccagcaa gtgtaagccc tcggatgtgg atggcatcgg ccagaccctg 350
 cccgtgtcct gctgcaatac tgagctgtgc aatgtagacg gggcgcccgc 400
 tctgaacagc ctccactgcg gggccctcac gtcctccca ctcttgagcc 450
 tccgactgta gagtccccgc ccacccccat ggccctatgc ggcccagccc 500
 cgaatgcctt gaagaagtgc cccctgcacc aggaaaaaaaaa aaaaaaaaaa 550

<210> 454
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 454

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Cys Gly Glu Leu Ala Pro Ala Leu Arg Cys Tyr Val Cys Pro Glu
20 25 30
Pro Thr Gly Val Ser Asp Cys Val Thr Ile Ala Thr Cys Thr Thr
35 40 45
Asn Glu Thr Met Cys Lys Thr Thr Leu Tyr Ser Arg Glu Ile Val
50 55 60
Tyr Pro Phe Gln Gly Asp Ser Thr Val Thr Lys Ser Cys Ala Ser
65 70 75
Lys Cys Lys Pro Ser Asp Val Asp Gly Ile Gly Gln Thr Leu Pro
80 85 90
Val Ser Cys Cys Asn Thr Glu Leu Cys Asn Val Asp Gly Ala Pro
95 100 105
Ala Leu Asn Ser Leu His Cys Gly Ala Leu Thr Leu Leu Pro Leu
110 115 120
Leu Ser Leu Arg Leu
125

<210> 455

<211> 1518

<212> DNA

<213> Homo sapiens

<400> 455

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gcgcagcggg agctaccggg gtctttgtcg cgatggtagc ggcggctctc 200
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 gtaattcttc taggcttcac acttgtcaga gacactaaac cagctatcca 950
 aatgcagtga actcctttta tataatagat gctatgaaaa ccttttatga 1000
 cttcatcaa ctcaatccta aggatataca agttctgtgg tttcagttaa 1050
 gcattccaat aacaccttcc aaaaacctgg agtgtaagag ctttgtttct 1100
 ttatggaact cccctgtgat tgcagtaa at tactgtattg taaattctca 1150
 gtgtggcact tacctgtaaa tgcaatgaaa cttttaatta tttttctaaa 1200
 ggtgctgcac tgcctatttt tcctcttggt atgtaaattt ttgtacacat 1250
 tgattgttat cttgactgac aaatattcta tattgaactg aagtaaata 1300
 tttcagctta tagttcttaa aagcataacc ctttaccoca ttttaattcta 1350
 gagtctagaa cgcaaggatc tcttggaatg acaaatagata ggtacctaaa 1400
 atgtaacatg aaaatactag cttattttct gaaatgtact atcttaatgc 1450
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 catttaaaaa aaaaaaaaa 1518

<210> 456

<211> 266

<212> PRT

<213> Homo sapiens

<400> 456

Met	Met	Ala	Leu	Gly	Ala	Ala	Gly	Ala	Thr	Arg	Val	Phe	Val	Ala
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Met	Val	Ala	Ala	Ala	Leu	Gly	Gly	His	Pro	Leu	Leu	Gly	Val	Ser
				20					25					30
Ala	Thr	Leu	Asn	Ser	Val	Leu	Asn	Ser	Asn	Ala	Ile	Lys	Asn	Leu
				35					40					45
Pro	Pro	Pro	Leu	Gly	Gly	Ala	Ala	Gly	His	Pro	Gly	Ser	Ala	Val
				50					55					60
Ser	Ala	Ala	Pro	Gly	Ile	Leu	Tyr	Pro	Gly	Gly	Asn	Lys	Tyr	Gln
				65					70					75

Thr	Ile	Asp	Asn	Tyr	Gln	Pro	Tyr	Pro	Cys	Ala	Glu	Asp	Glu	Glu	
				80					85					90	
Cys	Gly	Thr	Asp	Glu	Tyr	Cys	Ala	Ser	Pro	Thr	Arg	Gly	Gly	Asp	
				95					100					105	
Ala	Gly	Val	Gln	Ile	Cys	Leu	Ala	Cys	Arg	Lys	Arg	Arg	Lys	Arg	
				110					115					120	
Cys	Met	Arg	His	Ala	Met	Cys	Cys	Pro	Gly	Asn	Tyr	Cys	Lys	Asn	
				125					130					135	
Gly	Ile	Cys	Val	Ser	Ser	Asp	Gln	Asn	His	Phe	Arg	Gly	Glu	Ile	
				140					145					150	
Glu	Glu	Thr	Ile	Thr	Glu	Ser	Phe	Gly	Asn	Asp	His	Ser	Thr	Leu	
				155					160					165	
Asp	Gly	Tyr	Ser	Arg	Arg	Thr	Thr	Leu	Ser	Ser	Lys	Met	Tyr	His	
				170					175					180	
Thr	Lys	Gly	Gln	Glu	Gly	Ser	Val	Cys	Leu	Arg	Ser	Ser	Asp	Cys	
				185					190					195	
Ala	Ser	Gly	Leu	Cys	Cys	Ala	Arg	His	Phe	Trp	Ser	Lys	Ile	Cys	
				200					205					210	
Lys	Pro	Val	Leu	Lys	Glu	Gly	Gln	Val	Cys	Thr	Lys	His	Arg	Arg	
				215					220					225	
Lys	Gly	Ser	His	Gly	Leu	Glu	Ile	Phe	Gln	Arg	Cys	Tyr	Cys	Gly	
				230					235					240	
Glu	Gly	Leu	Ser	Cys	Arg	Ile	Gln	Lys	Asp	His	His	Gln	Ala	Ser	
				245					250					255	
Asn	Ser	Ser	Arg	Leu	His	Thr	Cys	Gln	Arg	His					
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<210> 457
 <211> 638
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 30, 123, 133, 139, 180, 214, 259, 282, 308, 452, 467, 471, 473,
 509, 556
 <223> unknown base

 <400> 457
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 catttttttt tctttctcct tcnggagtcc ttntgagang atggtttttg 150

 gcgcagcggg agctaaccgg gttttttgtn gcgatggtag cggcgggtttt 200

cggcggccac cttntgctgg gaggtagcgc caccttgaat cggttttcaa 250
 ttccaacgnt atcaagaacc tgccccacc gntgggcggc gctgcggggc 300
 acccaggntt tgcagtcagc gccgcgccg gaatcctgta cccgggcggg 350
 aataagtacc agaccattga caattaccag ccgtacccgt gcgcagagga 400
 cgaggagtgc ggcactgatg agtactgcgc tagtcccacc cgcgagggg 450
 angcgggcgt gcaaantgt ntngcctgca ggaagcgccg aaaacgctgc 500
 atgcgtcang ctatgtgctg ccccggaat tactgcaaaa atggaatatg 550
 tgtgtnttct gatcaaaatc atttccgagg agaaattgag gaaaccatca 600
 ctgaaagctt tggtaatgat catagcacct tggatggg 638

<210> 458

<211> 4040

<212> DNA

<213> Homo sapiens

<400> 458

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 ttctctcctg cacgcggtgc ttgggctcgg ccaggcgggg tccgccgcca 150
 gggtttgagg atgggggagt agctacagga agcgaccccg cgatggcaag 200
 gtatatTTTT gtggaatgaa aaggaagtat tagaaatgag ctgaagacca 250
 ttcacagatt aatatttttg gggacagatt tgtgatgctt gattcaccct 300
 tgaagtaatg tagacagaag ttctcaaatt tgcatattac atcaactgga 350
 accagcagtg aatcttaatg ttacttaaa tcagaacttg cataagaaaag 400
 agaatgggag tctgggttaa taaagatgac tatatcagag acttgaaaag 450
 gatcattctc tgTTTTctga tagtgtatat ggccatttta gtgggcacag 500
 atcaggattt ttacagtitta cttggagtgt ccaaaactgc aagcagtaga 550
 gaaataagac aagctttcaa gaaattggca ttgaagttac atcctgataa 600
 aaaccggaat aacccaaatg cacatggcga ttttttaaaa ataaatagag 650
 catatgaagt actcaaagat gaagatctac ggaaaaagta tgacaaatat 700
 ggagaaaagg gacttgagga taatcaagggt ggccagtatg aaagctggaa 750
 ctattatcgt tatgattttg gtatttatga tgatgatcct gaaatcataa 800
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ctttcagtga aaaagttcta caagggaaaa atcattgggt gattgatttc 2350
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aatgatactg tagttattcc agttactagt ttactgtcag agggctgcct 3800
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 caagtatata aatctaggaa agggatcttc tagtttctgt gttgtttaga 3900
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<210> 459

<211> 747

<212> PRT

<213> Homo sapiens

<400> 459

Met	Gly	Val	Trp	Leu	Asn	Lys	Asp	Asp	Tyr	Ile	Arg	Asp	Leu	Lys	1	5	10	15
Arg	Ile	Ile	Leu	Cys	Phe	Leu	Ile	Val	Tyr	Met	Ala	Ile	Leu	Val	20	25	30	
Gly	Thr	Asp	Gln	Asp	Phe	Tyr	Ser	Leu	Leu	Gly	Val	Ser	Lys	Thr	35	40	45	
Ala	Ser	Ser	Arg	Glu	Ile	Arg	Gln	Ala	Phe	Lys	Lys	Leu	Ala	Leu	50	55	60	
Lys	Leu	His	Pro	Asp	Lys	Asn	Pro	Asn	Asn	Pro	Asn	Ala	His	Gly	65	70	75	
Asp	Phe	Leu	Lys	Ile	Asn	Arg	Ala	Tyr	Glu	Val	Leu	Lys	Asp	Glu	80	85	90	
Asp	Leu	Arg	Lys	Lys	Tyr	Asp	Lys	Tyr	Gly	Glu	Lys	Gly	Leu	Glu	95	100	105	
Asp	Asn	Gln	Gly	Gly	Gln	Tyr	Glu	Ser	Trp	Asn	Tyr	Tyr	Arg	Tyr	110	115	120	
Asp	Phe	Gly	Ile	Tyr	Asp	Asp	Asp	Pro	Glu	Ile	Ile	Thr	Leu	Glu	125	130	135	
Arg	Arg	Glu	Phe	Asp	Ala	Ala	Val	Asn	Ser	Gly	Glu	Leu	Trp	Phe	140	145	150	
Val	Asn	Phe	Tyr	Ser	Pro	Gly	Cys	Ser	His	Cys	His	Asp	Leu	Ala	155	160	165	
Pro	Thr	Trp	Arg	Asp	Phe	Ala	Lys	Glu	Val	Asp	Gly	Leu	Leu	Arg	170	175	180	
Ile	Gly	Ala	Val	Asn	Cys	Gly	Asp	Asp	Arg	Met	Leu	Cys	Arg	Met	185	190	195	
Lys	Gly	Val	Asn	Ser	Tyr	Pro	Ser	Leu	Phe	Ile	Phe	Arg	Ser	Gly				

	200	205	210
Met Ala Pro Val	Lys Tyr His Gly Asp 215	Arg Ser Lys Glu Ser 220	Leu 225
Val Ser Phe Ala	Met Gln His Val Arg 230	Ser Thr Val Thr Glu 235	Leu 240
Trp Thr Gly Asn	Phe Val Asn Ser Ile 245	Gln Thr Ala Phe Ala 250	Ala 255
Gly Ile Gly Trp	Leu Ile Thr Phe Cys 260	Ser Lys Gly Gly Asp 265	Cys 270
Leu Thr Ser Gln	Thr Arg Leu Arg Leu 275	Ser Gly Met Leu Phe 280	Leu 285
Asn Ser Leu Asp	Ala Lys Glu Ile Tyr 290	Leu Glu Val Ile His 295	Asn 300
Leu Pro Asp Phe	Glu Leu Leu Ser Ala 305	Asn Thr Leu Glu Asp 310	Arg 315
Leu Ala His His	Arg Trp Leu Leu Phe 320	Phe His Phe Gly Lys 325	Asn 330
Glu Asn Ser Asn	Asp Pro Glu Leu Lys 335	Lys Leu Lys Thr Leu 340	Leu 345
Lys Asn Asp His	Ile Gln Val Gly Arg 350	Phe Asp Cys Ser Ser 355	Ala 360
Pro Asp Ile Cys	Ser Asn Leu Tyr Val 365	Phe Gln Pro Ser Leu 370	Ala 375
Val Phe Lys Gly	Gln Gly Thr Lys Glu 380	Tyr Glu Ile His His 385	Gly 390
Lys Lys Ile Leu	Tyr Asp Ile Leu Ala 395	Phe Ala Lys Glu Ser 400	Val 405
Asn Ser His Val	Thr Thr Leu Gly Pro 410	Gln Asn Phe Pro Ala 415	Asn 420
Asp Lys Glu Pro	Trp Leu Val Asp Phe 425	Phe Ala Pro Trp Cys 430	Pro 435
Pro Cys Arg Ala	Leu Leu Pro Glu Leu 440	Arg Arg Ala Ser Asn 445	Leu 450
Leu Tyr Gly Gln	Leu Lys Phe Gly Thr 455	Leu Asp Cys Thr Val 460	His 465
Glu Gly Leu Cys	Asn Met Tyr Asn Ile 470	Gln Ala Tyr Pro Thr 475	Thr 480
Val Val Phe Asn	Gln Ser Asn Ile His 485	Glu Tyr Glu Gly His 490	His 495

Ser	Ala	Glu	Gln	Ile	Leu	Glu	Phe	Ile	Glu	Asp	Leu	Met	Asn	Pro	500	505	510
Ser	Val	Val	Ser	Leu	Thr	Pro	Thr	Thr	Phe	Asn	Glu	Leu	Val	Thr	515	520	525
Gln	Arg	Lys	His	Asn	Glu	Val	Trp	Met	Val	Asp	Phe	Tyr	Ser	Pro	530	535	540
Trp	Cys	His	Pro	Cys	Gln	Val	Leu	Met	Pro	Glu	Trp	Lys	Arg	Met	545	550	555
Ala	Arg	Thr	Leu	Thr	Gly	Leu	Ile	Asn	Val	Gly	Ser	Ile	Asp	Cys	560	565	570
Gln	Gln	Tyr	His	Ser	Phe	Cys	Ala	Gln	Glu	Asn	Val	Gln	Arg	Tyr	575	580	585
Pro	Glu	Ile	Arg	Phe	Phe	Pro	Pro	Lys	Ser	Asn	Lys	Ala	Tyr	Gln	590	595	600
Tyr	His	Ser	Tyr	Asn	Gly	Trp	Asn	Arg	Asp	Ala	Tyr	Ser	Leu	Arg	605	610	615
Ile	Trp	Gly	Leu	Gly	Phe	Leu	Pro	Gln	Val	Ser	Thr	Asp	Leu	Thr	620	625	630
Pro	Gln	Thr	Phe	Ser	Glu	Lys	Val	Leu	Gln	Gly	Lys	Asn	His	Trp	635	640	645
Val	Ile	Asp	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	Pro	Cys	Gln	Asn	Phe	650	655	660
Ala	Pro	Glu	Phe	Glu	Leu	Leu	Ala	Arg	Met	Ile	Lys	Gly	Lys	Val	665	670	675
Lys	Ala	Gly	Lys	Val	Asp	Cys	Gln	Ala	Tyr	Ala	Gln	Thr	Cys	Gln	680	685	690
Lys	Ala	Gly	Ile	Arg	Ala	Tyr	Pro	Thr	Val	Lys	Phe	Tyr	Phe	Tyr	695	700	705
Glu	Arg	Ala	Lys	Arg	Asn	Phe	Gln	Glu	Glu	Gln	Ile	Asn	Thr	Arg	710	715	720
Asp	Ala	Lys	Ala	Ile	Ala	Ala	Leu	Ile	Ser	Glu	Lys	Leu	Glu	Thr	725	730	735
Leu	Arg	Asn	Gln	Gly	Lys	Arg	Asn	Lys	Asp	Glu	Leu				740	745	

<210> 460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 460
actccccagg ctgttcacac tgcc 24

<210> 461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 461
gatcagccag ccaataccag cagc 24

<210> 462
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 462
gtggtgatga tagaatgctt tgccgaatga aaggagtcaa cagctatccc 50

<210> 463
<211> 1818
<212> DNA
<213> Homo sapiens

<400> 463
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ggacagagca aagccatgaa catcatccta gaaatccttc tgcttctgat 100
caccatcatc tactoctact tggagtcgtt ggtgaagttt ttcattcctc 150
agaggagaaa atctgtggct ggggagattg ttctcattac tggagctggg 200
catggaatag gcaggcagac tacttatgaa tttgcaaaac gacagagcat 250
attggttctg tgggatatta ataagcgcg tgtggaggaa actgcagctg 300
agtgccgaaa actaggcgtc actgcgcgtg cgtatgtggt agactgcagc 350
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ttctcagcac caaggatgaa gagattacca agacatttga ggtcaacatc 500
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aatcatggc cacatcgtca cagtggcttc agtgtgcggc cacgaaggga 600
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cacagaggtc tgacatcaga acttcaggcc ttgggaaaaa ctggtatcaa 700

aacctcatgt ctctgccag tttttgtgaa tactgggttc accaaaaatc 750
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 caaacgaaca agattaatta cctgtcttcc tgtttctcaa gaatatttac 1150
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 catttaaagg tggacaaaag ctacctccct aaaagtaa at acaaagagaa 1300
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 tagccatgcc acagaatatc aacaagaaca cagaatgagt gcacagctaa 1400
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 aactctgaag tccacaaaaa gtggaccctc tatatttcct ccctttttat 1600
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 gaattttaag ttctagcccc atgataacct ttttctttgt aatttatgct 1700
 ttcatatatc cttggtccca gagatgttta gacaatttta ggctcaaaaa 1750
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 atggacccaa gagaagaa 1818

<210> 464

<211> 300

<212> PRT

<213> Homo sapiens

<400> 464

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Tyr	Ser	Tyr	Leu	Glu	Ser	Leu	Val	Lys	Phe	Phe	Ile	Pro	Gln	Arg
				20				25						30

Arg	Lys	Ser	Val	Ala	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly	
				35					40					45	
His	Gly	Ile	Gly	Arg	Gln	Thr	Thr	Tyr	Glu	Phe	Ala	Lys	Arg	Gln	
				50					55					60	
Ser	Ile	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	Arg	Gly	Val	Glu	Glu	
				65					70					75	
Thr	Ala	Ala	Glu	Cys	Arg	Lys	Leu	Gly	Val	Thr	Ala	His	Ala	Tyr	
				80					85					90	
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Glu	Ile	Tyr	Arg	Ser	Leu	Asn	
				95					100					105	
Gln	Val	Lys	Lys	Glu	Val	Gly	Asp	Val	Thr	Ile	Val	Val	Asn	Asn	
				110					115					120	
Ala	Gly	Thr	Val	Tyr	Pro	Ala	Asp	Leu	Leu	Ser	Thr	Lys	Asp	Glu	
				125					130					135	
Glu	Ile	Thr	Lys	Thr	Phe	Glu	Val	Asn	Ile	Leu	Gly	His	Phe	Trp	
				140					145					150	
Ile	Thr	Lys	Ala	Leu	Leu	Pro	Ser	Met	Met	Glu	Arg	Asn	His	Gly	
				155					160					165	
His	Ile	Val	Thr	Val	Ala	Ser	Val	Cys	Gly	His	Glu	Gly	Ile	Pro	
				170					175					180	
Tyr	Leu	Ile	Pro	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe	
				185					190					195	
His	Arg	Gly	Leu	Thr	Ser	Glu	Leu	Gln	Ala	Leu	Gly	Lys	Thr	Gly	
				200					205					210	
Ile	Lys	Thr	Ser	Cys	Leu	Cys	Pro	Val	Phe	Val	Asn	Thr	Gly	Phe	
				215					220					225	
Thr	Lys	Asn	Pro	Ser	Thr	Arg	Leu	Trp	Pro	Val	Leu	Glu	Thr	Asp	
				230					235					240	
Glu	Val	Val	Arg	Ser	Leu	Ile	Asp	Gly	Ile	Leu	Thr	Asn	Lys	Lys	
				245					250					255	
Met	Ile	Phe	Val	Pro	Ser	Tyr	Ile	Asn	Ile	Phe	Leu	Arg	Leu	Gln	
				260					265					270	
Lys	Phe	Leu	Pro	Glu	Arg	Ala	Ser	Ala	Ile	Leu	Asn	Arg	Met	Gln	
				275					280					285	
Asn	Ile	Gln	Phe	Glu	Ala	Val	Val	Gly	His	Lys	Ile	Lys	Met	Lys	
				290					295					300	

<210> 465

<211> 1547

<212> DNA

<213> Homo sapiens

<400> 465

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gagagggccc agcccgcccc gggcaggatg accaaggccc ggctgttccg 150
gctgtggctg gtgctggggg cgggtgttcat gatcctgctg atcatcgtgt 200
actgggacag cgcaggcgcc gcgcacttct acttgcacac gtccttctct 250
aggccgcaca cggggccgcc gctgccacg cccgggcccg acagggacag 300
ggagctcacg gccgactccg atgtcgacga gtttctggac aagtttctca 350
gtgctggcgt gaagcagagc gaccttccca gaaaggagac ggagcagccg 400
cctgcgcggg ggagcatgga ggagagcgtg agaggctacg actggtcccc 450
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<211> 414

<212> PRT

<213> Homo sapiens

<400> 466

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Val	Phe	Met	Ile	Leu	Leu	Ile	Ile	Val	Tyr	Trp	Asp	Ser	Ala	Gly
				20					25					30

Ala	Ala	His	Phe	Tyr	Leu	His	Thr	Ser	Phe	Ser	Arg	Pro	His	Thr
				35					40					45

Gly	Pro	Pro	Leu	Pro	Thr	Pro	Gly	Pro	Asp	Arg	Asp	Arg	Glu	Leu
				50					55					60

Thr	Ala	Asp	Ser	Asp	Val	Asp	Glu	Phe	Leu	Asp	Lys	Phe	Leu	Ser
				65					70					75

Ala	Gly	Val	Lys	Gln	Ser	Asp	Leu	Pro	Arg	Lys	Glu	Thr	Glu	Gln
				80					85					90

Pro	Pro	Ala	Pro	Gly	Ser	Met	Glu	Glu	Ser	Val	Arg	Gly	Tyr	Asp
				95					100					105

Trp	Ser	Pro	Arg	Asp	Ala	Arg	Arg	Ser	Pro	Asp	Gln	Gly	Arg	Gln
				110					115					120

Gln	Ala	Glu	Arg	Arg	Ser	Val	Leu	Arg	Gly	Phe	Cys	Ala	Asn	Ser
				125					130					135

Ser	Leu	Ala	Phe	Pro	Thr	Lys	Glu	Arg	Ala	Phe	Asp	Asp	Ile	Pro
				140					145					150

Asn	Ser	Glu	Leu	Ser	His	Leu	Ile	Val	Asp	Asp	Arg	His	Gly	Ala
				155					160					165

Ile	Tyr	Cys	Tyr	Val	Pro	Lys	Val	Ala	Cys	Thr	Asn	Trp	Lys	Arg
				170					175					180

Val	Met	Ile	Val	Leu	Ser	Gly	Ser	Leu	Leu	His	Arg	Gly	Ala	Pro
				185					190					195

Tyr	Arg	Asp	Pro	Leu	Arg	Ile	Pro	Arg	Glu	His	Val	His	Asn	Ala
				200					205					210

Ser	Ala	His	Leu	Thr	Phe	Asn	Lys	Phe	Trp	Arg	Arg	Tyr	Gly	Lys
				215					220					225

Leu	Ser	Arg	His	Leu	Met	Lys	Val	Lys	Leu	Lys	Lys	Tyr	Thr	Lys
				230					235					240

Phe Leu Phe Val Arg Asp Pro Phe Val Arg Leu Ile Ser Ala Phe
245 250 255

Arg Ser Lys Phe Glu Leu Glu Asn Glu Glu Phe Tyr Arg Lys Phe
260 265 270

Ala Val Pro Met Leu Arg Leu Tyr Ala Asn His Thr Ser Leu Pro
275 280 285

Ala Ser Ala Arg Glu Ala Phe Arg Ala Gly Leu Lys Val Ser Phe
290 295 300

Ala Asn Phe Ile Gln Tyr Leu Leu Asp Pro His Thr Glu Lys Leu
305 310 315

Ala Pro Phe Asn Glu His Trp Arg Gln Val Tyr Arg Leu Cys His
320 325 330

Pro Cys Gln Ile Asp Tyr Asp Phe Val Gly Lys Leu Glu Thr Leu
335 340 345

Asp Glu Asp Ala Ala Gln Leu Leu Gln Leu Leu Gln Val Asp Arg
350 355 360

Gln Leu Arg Phe Pro Pro Ser Tyr Arg Asn Arg Thr Ala Ser Ser
365 370 375

Trp Glu Glu Asp Trp Phe Ala Lys Ile Pro Leu Ala Trp Arg Gln
380 385 390

Gln Leu Tyr Lys Leu Tyr Glu Ala Asp Phe Val Leu Phe Gly Tyr
395 400 405

Pro Lys Pro Glu Asn Leu Leu Arg Asp
410

<210> 467
<211> 1071
<212> DNA
<213> Homo sapiens

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<210> 468

<211> 270

<212> PRT

<213> Homo sapiens

<400> 468

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				20					25					30
Asn	Ser	Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly
				35					40					45
Gly	Arg	Ala	Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu
				50					55					60
Cys	Asp	Val	Thr	Gln	Glu	Asp	Asp	Val	Lys	Thr	Leu	Val	Ser	Glu
				65					70					75
Thr	Ile	Arg	Arg	Phe	Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala
				80					85					90
Gly	His	His	Pro	Pro	Pro	Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln
				95					100					105
Gly	Phe	Arg	Gln	Leu	Leu	Glu	Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr
				110					115					120

Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr	Leu	Arg	Lys	Ser	Gln	Gly	Asn	
				125					130					135	
Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly	Ala	Ile	Gly	Gln	Ala	Gln	
				140					145					150	
Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala	Val	Thr	Ala	Met	Thr	
				155					160					165	
Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly	Val	Arg	Val	Asn	
				170					175					180	
Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp	Glu	Glu	Leu	
				185					190					195	
Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu	Gly	Met	
				200					205					210	
Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val	Gly	
				215					220					225	
Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly	
				230					235					240	
Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	
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Lys	Ala	Ser	Arg	Ser	Thr	Pro	Val	Asp	Ala	Pro	Asp	Ile	Pro	Ser	
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<210> 469

<211> 687

<212> DNA

<213> Homo sapiens

<400> 469

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<210> 470
<211> 180
<212> PRT
<213> Homo sapiens

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35 40 45
Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
50 55 60
Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
65 70 75
Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
80 85 90
Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
95 100 105
Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
110 115 120
Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
125 130 135
Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
140 145 150
Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
155 160 165
Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
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<211> 2368
<212> DNA
<213> Homo sapiens

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cggcccgag ctaacggcgc tcctggccgc ctggatcgcg gctgtggcgg 200
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<210> 472

<211> 349

<212> PRT

<213> Homo sapiens

<400> 472

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          20          25          30

Ala Leu Pro Pro Glu Gln Ser Arg Val Gln Pro Met Thr Ala Ser
          35          40          45

Asn Trp Thr Leu Val Met Glu Gly Glu Trp Met Leu Lys Phe Tyr
          50          55          60

Ala Pro Trp Cys Pro Ser Cys Gln Gln Thr Asp Ser Glu Trp Glu
          65          70          75

Ala Phe Ala Lys Asn Gly Glu Ile Leu Gln Ile Ser Val Gly Lys
          80          85          90

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Val	Asp	Val	Ile	Gln	Glu	Pro	Gly	Leu	Ser	Gly	Arg	Phe	Phe	Val	95	100	105
Thr	Thr	Leu	Pro	Ala	Phe	Phe	His	Ala	Lys	Asp	Gly	Ile	Phe	Arg	110	115	120
Arg	Tyr	Arg	Gly	Pro	Gly	Ile	Phe	Glu	Asp	Leu	Gln	Asn	Tyr	Ile	125	130	135
Leu	Glu	Lys	Lys	Trp	Gln	Ser	Val	Glu	Pro	Leu	Thr	Gly	Trp	Lys	140	145	150
Ser	Pro	Ala	Ser	Leu	Thr	Met	Ser	Gly	Met	Ala	Gly	Leu	Phe	Ser	155	160	165
Ile	Ser	Gly	Lys	Ile	Trp	His	Leu	His	Asn	Tyr	Phe	Thr	Val	Thr	170	175	180
Leu	Gly	Ile	Pro	Ala	Trp	Cys	Ser	Tyr	Val	Phe	Phe	Val	Ile	Ala	185	190	195
Thr	Leu	Val	Phe	Gly	Leu	Phe	Met	Gly	Leu	Val	Leu	Val	Val	Ile	200	205	210
Ser	Glu	Cys	Phe	Tyr	Val	Pro	Leu	Pro	Arg	His	Leu	Ser	Glu	Arg	215	220	225
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Asn	Lys	Asp	Ser	Leu	Val	Asp	Asp	Glu	Glu	Glu	Lys	Glu	Asp	Leu	260	265	270
Gly	Asp	Glu	Asp	Glu	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asn	Leu	275	280	285
Ala	Ala	Gly	Val	Asp	Glu	Glu	Arg	Ser	Glu	Ala	Asn	Asp	Gln	Gly	290	295	300
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Glu	Ala	Glu	Glu	Gly	Ile	Ser	Glu	Gln	Pro	Cys	Pro	Ala	Asp	Thr	320	325	330
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<211> 24

<212> DNA

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<210> 474
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 474
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<210> 475
<211> 44
<212> DNA
<213> Artificial Sequence

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<210> 476
<211> 2478
<212> DNA
<213> Homo sapiens

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 agaaattgta ccaattttac taaattatgc agttttaaag ggatgatttt 2400
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2478

<210> 477

<211> 201

<212> PRT

<213> Homo sapiens

<400> 477

Met	Glu	Tyr	His	Pro	Asp	Leu	Glu	Asn	Leu	Asp	Glu	Asp	Gly	Tyr	1	5	10	15
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Val	Ser	Glu	Lys	Gly	Ser	Cys	Ala	Ala	Ser	Pro	Pro	Trp	Arg	Leu	35	40	45	
Ile	Ala	Val	Ile	Leu	Gly	Ile	Leu	Cys	Leu	Val	Ile	Leu	Val	Ile	50	55	60	
Ala	Val	Val	Leu	Gly	Thr	Met	Gly	Val	Leu	Ser	Ser	Pro	Cys	Pro	65	70	75	
Pro	Asn	Trp	Ile	Ile	Tyr	Glu	Lys	Ser	Cys	Tyr	Leu	Phe	Ser	Met	80	85	90	
Ser	Leu	Asn	Ser	Trp	Asp	Gly	Ser	Lys	Arg	Gln	Cys	Trp	Gln	Leu	95	100	105	
Gly	Ser	Asn	Leu	Leu	Lys	Ile	Asp	Ser	Ser	Asn	Glu	Leu	Gly	Phe	110	115	120	
Ile	Val	Lys	Gln	Val	Ser	Ser	Gln	Pro	Asp	Asn	Ser	Phe	Trp	Ile	125	130	135	
Gly	Leu	Ser	Arg	Pro	Gln	Thr	Glu	Val	Pro	Trp	Leu	Trp	Glu	Asp	140	145	150	
Gly	Ser	Thr	Phe	Ser	Ser	Asn	Leu	Phe	Gln	Ile	Arg	Thr	Thr	Ala	155	160	165	
Thr	Gln	Glu	Asn	Pro	Ser	Pro	Asn	Cys	Val	Trp	Ile	His	Val	Ser				

	170	175	180
Val Ile Tyr Asp Gln Leu Cys Ser Val Pro Ser Tyr Ser Ile Cys			
185	190	195	
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 478
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<210> 479
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 479
 acaagtgtct tcccaacctg 20

<210> 480
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 480
 atcctcccag agccatggta cctc 24

<210> 481
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 481
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<210> 482
 <211> 3819
 <212> DNA
 <213> Homo sapiens

<400> 482

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<210> 483

<211> 693

<212> PRT

<213> Homo sapiens

<400> 483

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Leu	Leu	Phe	Leu	Val	Gln	Gly	Ala	His	Gly	Arg	Gly	His	Arg	Glu
				20					25					30
Asp	Phe	Arg	Phe	Cys	Ser	Gln	Arg	Asn	Gln	Thr	His	Arg	Ser	Ser
				35					40					45
Leu	His	Tyr	Lys	Pro	Thr	Pro	Asp	Leu	Arg	Ile	Ser	Ile	Glu	Asn
				50					55					60
Ser	Glu	Glu	Ala	Leu	Thr	Val	His	Ala	Pro	Phe	Pro	Ala	Ala	His
				65					70					75

Pro	Ala	Ser	Arg	Ser	Phe	Pro	Asp	Pro	Arg	Gly	Leu	Tyr	His	Phe	
				80					85					90	
Cys	Leu	Tyr	Trp	Asn	Arg	His	Ala	Gly	Arg	Leu	His	Leu	Leu	Tyr	
				95					100					105	
Gly	Lys	Arg	Asp	Phe	Leu	Leu	Ser	Asp	Lys	Ala	Ser	Ser	Leu	Leu	
				110					115					120	
Cys	Phe	Gln	His	Gln	Glu	Glu	Ser	Leu	Ala	Gln	Gly	Pro	Pro	Leu	
				125					130					135	
Leu	Ala	Thr	Ser	Val	Thr	Ser	Trp	Trp	Ser	Pro	Gln	Asn	Ile	Ser	
				140					145					150	
Leu	Pro	Ser	Ala	Ala	Ser	Phe	Thr	Phe	Ser	Phe	His	Ser	Pro	Pro	
				155					160					165	
His	Thr	Ala	Ala	His	Asn	Ala	Ser	Val	Asp	Met	Cys	Glu	Leu	Lys	
				170					175					180	
Arg	Asp	Leu	Gln	Leu	Leu	Ser	Gln	Phe	Leu	Lys	His	Pro	Gln	Lys	
				185					190					195	
Ala	Ser	Arg	Arg	Pro	Ser	Ala	Ala	Pro	Ala	Ser	Gln	Gln	Leu	Gln	
				200					205					210	
Ser	Leu	Glu	Ser	Lys	Leu	Thr	Ser	Val	Arg	Phe	Met	Gly	Asp	Met	
				215					220					225	
Val	Ser	Phe	Glu	Glu	Asp	Arg	Ile	Asn	Ala	Thr	Val	Trp	Lys	Leu	
				230					235					240	
Gln	Pro	Thr	Ala	Gly	Leu	Gln	Asp	Leu	His	Ile	His	Ser	Arg	Gln	
				245					250					255	
Glu	Glu	Glu	Gln	Ser	Glu	Ile	Met	Glu	Tyr	Ser	Val	Leu	Leu	Pro	
				260					265					270	
Arg	Thr	Leu	Phe	Gln	Arg	Thr	Lys	Gly	Arg	Ser	Gly	Glu	Ala	Glu	
				275					280					285	
Lys	Arg	Leu	Leu	Leu	Val	Asp	Phe	Ser	Ser	Gln	Ala	Leu	Phe	Gln	
				290					295					300	
Asp	Lys	Asn	Ser	Ser	Gln	Val	Leu	Gly	Glu	Lys	Val	Leu	Gly	Ile	
				305					310					315	
Val	Val	Gln	Asn	Thr	Lys	Val	Ala	Asn	Leu	Thr	Glu	Pro	Val	Val	
				320					325					330	
Leu	Thr	Phe	Gln	His	Gln	Leu	Gln	Pro	Lys	Asn	Val	Thr	Leu	Gln	
				335					340					345	
Cys	Val	Phe	Trp	Val	Glu	Asp	Pro	Thr	Leu	Ser	Ser	Pro	Gly	His	
				350					355					360	
Trp	Ser	Ser	Ala	Gly	Cys	Glu	Thr	Val	Arg	Arg	Glu	Thr	Gln	Thr	

	365		370		375
Ser Cys Phe Cys Asn His Leu Thr Tyr	380	Phe Ala Val Leu Met Val	385		390
Ser Ser Val Glu Val Asp Ala Val His	395	Lys His Tyr Leu Ser Leu	400		405
Leu Ser Tyr Val Gly Cys Val Val Ser	410	Ala Leu Ala Cys Leu Val	415		420
Thr Ile Ala Ala Tyr Leu Cys Ser Arg	425	Val Pro Leu Pro Cys Arg	430		435
Arg Lys Pro Arg Asp Tyr Thr Ile Lys	440	Val His Met Asn Leu Leu	445		450
Leu Ala Val Phe Leu Leu Asp Thr Ser	455	Phe Leu Leu Ser Glu Pro	460		465
Val Ala Leu Thr Gly Ser Glu Ala Gly	470	Cys Arg Ala Ser Ala Ile	475		480
Phe Leu His Phe Ser Leu Leu Thr Cys	485	Leu Ser Trp Met Gly Leu	490		495
Glu Gly Tyr Asn Leu Tyr Arg Leu Val	500	Val Glu Val Phe Gly Thr	505		510
Tyr Val Pro Gly Tyr Leu Leu Lys Leu	515	Ser Ala Met Gly Trp Gly	520		525
Phe Pro Ile Phe Leu Val Thr Leu Val	530	Ala Leu Val Asp Val Asp	535		540
Asn Tyr Gly Pro Ile Ile Leu Ala Val	545	His Arg Thr Pro Glu Gly	550		555
Val Ile Tyr Pro Ser Met Cys Trp Ile	560	Arg Asp Ser Leu Val Ser	565		570
Tyr Ile Thr Asn Leu Gly Leu Phe Ser	575	Leu Val Phe Leu Phe Asn	580		585
Met Ala Met Leu Ala Thr Met Val Val	590	Gln Ile Leu Arg Leu Arg	595		600
Pro His Thr Gln Lys Trp Ser His Val	605	Leu Thr Leu Leu Gly Leu	610		615
Ser Leu Val Leu Gly Leu Pro Trp Ala	620	Leu Ile Phe Phe Ser Phe	625		630
Ala Ser Gly Thr Phe Gln Leu Val Val	635	Leu Tyr Leu Phe Ser Ile	640		645
Ile Thr Ser Phe Gln Gly Phe Leu Ile	650	Phe Ile Trp Tyr Trp Ser	655		660

Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn
665 670 675

Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser
680 685 690

Ser Arg Ile

<210> 484
<211> 516
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 68, 70, 84, 147
<223> unknown base

<400> 484
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cgggtggccct gacaggctct gaaggctggc tgccgagcca gtgccatctt 200
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tttctgttca acatgg 516

<210> 485
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 485
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<210> 486
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 486
tggaggccta gatgcggctg gacg 24

<210> 487
<211> 2849
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 2715
<223> unknown base

<400> 487
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<210> 488

<211> 345

<212> PRT

<213> Homo sapiens

<400> 488

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Gln	Phe	Ser	Ser	Asn	Lys	Glu	Gln	Asn	Gly	Val	Gln	Asp	Pro	Gln	35	40	45	
His	Glu	Arg	Ile	Ile	Thr	Val	Ser	Thr	Asn	Gly	Ser	Ile	His	Ser	50	55	60	
Pro	Arg	Phe	Pro	His	Thr	Tyr	Pro	Arg	Asn	Thr	Val	Leu	Val	Trp	65	70	75	
Arg	Leu	Val	Ala	Val	Glu	Glu	Asn	Val	Trp	Ile	Gln	Leu	Thr	Phe	80	85	90	
Asp	Glu	Arg	Phe	Gly	Leu	Glu	Asp	Pro	Glu	Asp	Asp	Ile	Cys	Lys	95	100	105	
Tyr	Asp	Phe	Val	Glu	Val	Glu	Glu	Pro	Ser	Asp	Gly	Thr	Ile	Leu	110	115	120	
Gly	Arg	Trp	Cys	Gly	Ser	Gly	Thr	Val	Pro	Gly	Lys	Gln	Ile	Ser	125	130	135	
Lys	Gly	Asn	Gln	Ile	Arg	Ile	Arg	Phe	Val	Ser	Asp	Glu	Tyr	Phe	140	145	150	
Pro	Ser	Glu	Pro	Gly	Phe	Cys	Ile	His	Tyr	Asn	Ile	Val	Met	Pro	155	160	165	
Gln	Phe	Thr	Glu	Ala	Val	Ser	Pro	Ser	Val	Leu	Pro	Pro	Ser	Ala	170	175	180	
Leu	Pro	Leu	Asp	Leu	Leu	Asn	Asn	Ala	Ile	Thr	Ala	Phe	Ser	Thr	185	190	195	

Leu	Glu	Asp	Leu	Ile	Arg	Tyr	Leu	Glu	Pro	Glu	Arg	Trp	Gln	Leu	200	205	210
Asp	Leu	Glu	Asp	Leu	Tyr	Arg	Pro	Thr	Trp	Gln	Leu	Leu	Gly	Lys	215	220	225
Ala	Phe	Val	Phe	Gly	Arg	Lys	Ser	Arg	Val	Val	Asp	Leu	Asn	Leu	230	235	240
Leu	Thr	Glu	Glu	Val	Arg	Leu	Tyr	Ser	Cys	Thr	Pro	Arg	Asn	Phe	245	250	255
Ser	Val	Ser	Ile	Arg	Glu	Glu	Leu	Lys	Arg	Thr	Asp	Thr	Ile	Phe	260	265	270
Trp	Pro	Gly	Cys	Leu	Leu	Val	Lys	Arg	Cys	Gly	Gly	Asn	Cys	Ala	275	280	285
Cys	Cys	Leu	His	Asn	Cys	Asn	Glu	Cys	Gln	Cys	Val	Pro	Ser	Lys	290	295	300
Val	Thr	Lys	Lys	Tyr	His	Glu	Val	Leu	Gln	Leu	Arg	Pro	Lys	Thr	305	310	315
Gly	Val	Arg	Gly	Leu	His	Lys	Ser	Leu	Thr	Asp	Val	Ala	Leu	Glu	320	325	330
His	His	Glu	Glu	Cys	Asp	Cys	Val	Cys	Arg	Gly	Ser	Thr	Gly	Gly	335	340	345

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<212> DNA

<213> Homo sapiens

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tctggatgtt ccaaagaacc atgtgatcgt ggactgcaca gacaagcatt 250

tgacagaaat tcctggaggt attcccacga acaccacgaa cctcaccctc 300

accattaacc acataccaga catctcccca gcgtcctttc acagactgga 350

ccatctggta gagatcgatt tcagatgcaa ctgtgtacct attccactgg 400
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<211> 1049

<213> Homo sapiens

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Pro Lys Thr Leu Pro Cys Asp Val Thr Leu Asp Val Pro Lys Asn
35 40 45

His Val Ile Val Asp Cys Thr Asp Lys His Leu Thr Glu Ile Pro
50 55 60

Gly Gly Ile Pro Thr Asn Thr Thr Asn Leu Thr Leu Thr Ile Asn
65 70 75

His Ile Pro Asp Ile Ser Pro Ala Ser Phe His Arg Leu Asp His
80 85 90

Leu Val Glu Ile Asp Phe Arg Cys Asn Cys Val Pro Ile Pro Leu
95 100 105

Gly Ser Lys Asn Asn Met Cys Ile Lys Arg Leu Gln Ile Lys Pro
110 115 120

Arg Ser Phe Ser Gly Leu Thr Tyr Leu Lys Ser Leu Tyr Leu Asp
125 130 135

Gly Asn Gln Leu Leu Glu Ile Pro Gln Gly Leu Pro Pro Ser Leu
140 145 150

Gln Leu Leu Ser Leu Glu Ala Asn Asn Ile Phe Ser Ile Arg Lys
155 160 165

Glu Asn Leu Thr Glu Leu Ala Asn Ile Glu Ile Leu Tyr Leu Gly
 170 175 180

Gln Asn Cys Tyr Tyr Arg Asn Pro Cys Tyr Val Ser Tyr Ser Ile
185 190 195

Glu Lys Asp Ala Phe Leu Asn Leu Thr Lys Leu Lys Val Leu Ser
200 205 210

Leu Lys Asp Asn Asn Val Thr Ala Val Pro Thr Val Leu Pro Ser
215 220 225

Thr Leu Thr Glu Leu Tyr Leu Tyr Asn Asn Met Ile Ala Lys Ile
230 235 240

Gln Glu Asp Asp Phe Asn Asn Leu Asn Gln Leu Gln Ile Leu Asp
245 250 255

Leu	Ser	Gly	Asn	Cys	Pro	Arg	Cys	Tyr	Asn	Ala	Pro	Phe	Pro	Cys	
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Ala	Pro	Cys	Lys	Asn	Asn	Ser	Pro	Leu	Gln	Ile	Pro	Val	Asn	Ala	
				275					280					285	
Phe	Asp	Ala	Leu	Thr	Glu	Leu	Lys	Val	Leu	Arg	Leu	His	Ser	Asn	
				290					295					300	
Ser	Leu	Gln	His	Val	Pro	Pro	Arg	Trp	Phe	Lys	Asn	Ile	Asn	Lys	
				305					310					315	
Leu	Gln	Glu	Leu	Asp	Leu	Ser	Gln	Asn	Phe	Leu	Ala	Lys	Glu	Ile	
				320					325					330	
Gly	Asp	Ala	Lys	Phe	Leu	His	Phe	Leu	Pro	Ser	Leu	Ile	Gln	Leu	
				335					340					345	
Asp	Leu	Ser	Phe	Asn	Phe	Glu	Leu	Gln	Val	Tyr	Arg	Ala	Ser	Met	
				350					355					360	
Asn	Leu	Ser	Gln	Ala	Phe	Ser	Ser	Leu	Lys	Ser	Leu	Lys	Ile	Leu	
				365					370					375	
Arg	Ile	Arg	Gly	Tyr	Val	Phe	Lys	Glu	Leu	Lys	Ser	Phe	Asn	Leu	
				380					385					390	
Ser	Pro	Leu	His	Asn	Leu	Gln	Asn	Leu	Glu	Val	Leu	Asp	Leu	Gly	
				395					400					405	
Thr	Asn	Phe	Ile	Lys	Ile	Ala	Asn	Leu	Ser	Met	Phe	Lys	Gln	Phe	
				410					415					420	
Lys	Arg	Leu	Lys	Val	Ile	Asp	Leu	Ser	Val	Asn	Lys	Ile	Ser	Pro	
				425					430					435	
Ser	Gly	Asp	Ser	Ser	Glu	Val	Gly	Phe	Cys	Ser	Asn	Ala	Arg	Thr	
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Ser	Val	Glu	Ser	Tyr	Glu	Pro	Gln	Val	Leu	Glu	Gln	Leu	His	Tyr	
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Phe	Arg	Tyr	Asp	Lys	Tyr	Ala	Arg	Ser	Cys	Arg	Phe	Lys	Asn	Lys	
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Glu	Ala	Ser	Phe	Met	Ser	Val	Asn	Glu	Ser	Cys	Tyr	Lys	Tyr	Gly	
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Gln	Thr	Leu	Asp	Leu	Ser	Lys	Asn	Ser	Ile	Phe	Phe	Val	Lys	Ser	
				500					505					510	
Ser	Asp	Phe	Gln	His	Leu	Ser	Phe	Leu	Lys	Cys	Leu	Asn	Leu	Ser	
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Gly	Asn	Leu	Ile	Ser	Gln	Thr	Leu	Asn	Gly	Ser	Glu	Phe	Gln	Pro	
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Thr His Met Leu	Asn Phe Thr Lys Asn	Leu Lys Val Leu Gln Lys			
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Met Glu Ser Glu	Ser Leu Arg Thr Leu	Glu Phe Arg Gly Asn His			
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Leu Asp Val Leu	Trp Arg Glu Gly Asp	Asn Arg Tyr Leu Gln Leu			
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Phe Lys Asn Leu	Leu Lys Leu Glu Glu	Leu Asp Ile Ser Lys Asn			
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Ser Leu Ser Phe	Leu Pro Ser Gly Val	Phe Asp Gly Met Pro Pro			
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Asn Leu Lys Asn	Leu Ser Leu Ala Lys	Asn Gly Leu Lys Ser Phe			
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Ser Trp Lys Lys	Leu Gln Cys Leu Lys	Asn Leu Glu Thr Leu Asp			
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Leu Ser His Asn	Gln Leu Thr Thr Val	Pro Glu Arg Leu Ser Asn			
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Cys Ser Arg Ser	Leu Lys Asn Leu Ile	Leu Lys Asn Asn Gln Ile			
	725	730		735	
Arg Ser Leu Thr	Lys Tyr Phe Leu Gln	Asp Ala Phe Gln Leu Arg			
	740	745		750	
Tyr Leu Asp Leu	Ser Ser Asn Lys Ile	Gln Met Ile Gln Lys Thr			
	755	760		765	
Ser Phe Pro Glu	Asn Val Leu Asn Asn	Leu Lys Met Leu Leu Leu			
	770	775		780	
His His Asn Arg	Phe Leu Cys Thr Cys	Asp Ala Val Trp Phe Val			
	785	790		795	
Trp Trp Val Asn	His Thr Glu Val Thr	Ile Pro Tyr Leu Ala Thr			
	800	805		810	
Asp Val Thr Cys	Val Gly Pro Gly Ala	His Lys Gly Gln Ser Val			
	815	820		825	
Ile Ser Leu Asp	Leu Tyr Thr Cys Glu	Leu Asp Leu Thr Asn Leu			
	830	835		840	

Ile	Leu	Phe	Ser	Leu	Ser	Ile	Ser	Val	Ser	Leu	Phe	Leu	Met	Val	
				845					850					855	
Met	Met	Thr	Ala	Ser	His	Leu	Tyr	Phe	Trp	Asp	Val	Trp	Tyr	Ile	
				860					865					870	
Tyr	His	Phe	Cys	Lys	Ala	Lys	Ile	Lys	Gly	Tyr	Gln	Arg	Leu	Ile	
				875					880					885	
Ser	Pro	Asp	Cys	Cys	Tyr	Asp	Ala	Phe	Ile	Val	Tyr	Asp	Thr	Lys	
				890					895					900	
Asp	Pro	Ala	Val	Thr	Glu	Trp	Val	Leu	Ala	Glu	Leu	Val	Ala	Lys	
				905					910					915	
Leu	Glu	Asp	Pro	Arg	Glu	Lys	His	Phe	Asn	Leu	Cys	Leu	Glu	Glu	
				920					925					930	
Arg	Asp	Trp	Leu	Pro	Gly	Gln	Pro	Val	Leu	Glu	Asn	Leu	Ser	Gln	
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Ser	Ile	Gln	Leu	Ser	Lys	Lys	Thr	Val	Phe	Val	Met	Thr	Asp	Lys	
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Tyr	Ala	Lys	Thr	Glu	Asn	Phe	Lys	Ile	Ala	Phe	Tyr	Leu	Ser	His	
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Gln	Arg	Leu	Met	Asp	Glu	Lys	Val	Asp	Val	Ile	Ile	Leu	Ile	Phe	
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Leu	Glu	Lys	Pro	Phe	Gln	Lys	Ser	Lys	Phe	Leu	Gln	Leu	Arg	Lys	
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Arg	Leu	Cys	Gly	Ser	Ser	Val	Leu	Glu	Trp	Pro	Thr	Asn	Pro	Gln	
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Ala	His	Pro	Tyr	Phe	Trp	Gln	Cys	Leu	Lys	Asn	Ala	Leu	Ala	Thr	
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<211> 4199

<212> DNA

<213> Homo sapiens

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 atgctgtggt tgcgttcggt tttatttaca gttgctttta caaatatttg 4000
 ctgtaacatt tgacttctaa ggttttagatg ccatttaaga actgagatgg 4050
 atagctttta aagcatcttt tactttttac ctttttttaa aagtatgcag 4100
 ctaaattcga agcttttggt ctatattggt aattgccatt gctgtaaatc 4150
 ttaaaatgaa tgaataaaaa tgtttcattt tacaaaaaaa aaaaaaaaaa 4199

<210> 498
 <211> 1041
 <212> PRT
 <213> Homo sapiens

<400> 498
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 1 5 10 15
 Leu Leu Ile Ser Gly Ser Cys Glu Leu Cys Ala Glu Glu Asn Phe
 20 25 30
 Ser Arg Ser Tyr Pro Cys Asp Glu Lys Lys Gln Asn Asp Ser Val
 35 40 45
 Ile Ala Glu Cys Ser Asn Arg Arg Leu Gln Glu Val Pro Gln Thr

				50					55					60
Val	Gly	Lys	Tyr	Val 65	Thr	Glu	Leu	Asp	Leu 70	Ser	Asp	Asn	Phe	Ile 75
Thr	His	Ile	Thr	Asn 80	Glu	Ser	Phe	Gln	Gly 85	Leu	Gln	Asn	Leu	Thr 90
Lys	Ile	Asn	Leu	Asn 95	His	Asn	Pro	Asn	Val 100	Gln	His	Gln	Asn	Gly 105
Asn	Pro	Gly	Ile	Gln 110	Ser	Asn	Gly	Leu	Asn 115	Ile	Thr	Asp	Gly	Ala 120
Phe	Leu	Asn	Leu	Lys 125	Asn	Leu	Arg	Glu	Leu 130	Leu	Leu	Glu	Asp	Asn 135
Gln	Leu	Pro	Gln	Ile 140	Pro	Ser	Gly	Leu	Pro 145	Glu	Ser	Leu	Thr	Glu 150
Leu	Ser	Leu	Ile	Gln 155	Asn	Asn	Ile	Tyr	Asn 160	Ile	Thr	Lys	Glu	Gly 165
Ile	Ser	Arg	Leu	Ile 170	Asn	Leu	Lys	Asn	Leu 175	Tyr	Leu	Ala	Trp	Asn 180
Cys	Tyr	Phe	Asn	Lys 185	Val	Cys	Glu	Lys	Thr 190	Asn	Ile	Glu	Asp	Gly 195
Val	Phe	Glu	Thr	Leu 200	Thr	Asn	Leu	Glu	Leu 205	Leu	Ser	Leu	Ser	Phe 210
Asn	Ser	Leu	Ser	His 215	Val	Pro	Pro	Lys	Leu 220	Pro	Ser	Ser	Leu	Arg 225
Lys	Leu	Phe	Leu	Ser 230	Asn	Thr	Gln	Ile	Lys 235	Tyr	Ile	Ser	Glu	Glu 240
Asp	Phe	Lys	Gly	Leu 245	Ile	Asn	Leu	Thr	Leu 250	Leu	Asp	Leu	Ser	Gly 255
Asn	Cys	Pro	Arg	Cys 260	Phe	Asn	Ala	Pro	Phe 265	Pro	Cys	Val	Pro	Cys 270
Asp	Gly	Gly	Ala	Ser 275	Ile	Asn	Ile	Asp	Arg 280	Phe	Ala	Phe	Gln	Asn 285
Leu	Thr	Gln	Leu	Arg 290	Tyr	Leu	Asn	Leu	Ser 295	Ser	Thr	Ser	Leu	Arg 300
Lys	Ile	Asn	Ala	Ala 305	Trp	Phe	Lys	Asn	Met 310	Pro	His	Leu	Lys	Val 315
Leu	Asp	Leu	Glu	Phe 320	Asn	Tyr	Leu	Val	Gly 325	Glu	Ile	Val	Ser	Gly 330
Ala	Phe	Leu	Thr	Met 335	Leu	Pro	Arg	Leu	Glu 340	Ile	Leu	Asp	Leu	Ser 345

Phe Asn Tyr Ile	Lys Gly Ser Tyr Pro	Gln His Ile Asn Ile Ser	350	355	360
Arg Asn Phe Ser	Lys Leu Leu Ser Leu	Arg Ala Leu His Leu Arg	365	370	375
Gly Tyr Val Phe	Gln Glu Leu Arg Glu	Asp Asp Phe Gln Pro Leu	380	385	390
Met Gln Leu Pro	Asn Leu Ser Thr Ile	Asn Leu Gly Ile Asn Phe	395	400	405
Ile Lys Gln Ile	Asp Phe Lys Leu Phe	Gln Asn Phe Ser Asn Leu	410	415	420
Glu Ile Ile Tyr	Leu Ser Glu Asn Arg	Ile Ser Pro Leu Val Lys	425	430	435
Asp Thr Arg Gln	Ser Tyr Ala Asn Ser	Ser Ser Phe Gln Arg His	440	445	450
Ile Arg Lys Arg	Arg Ser Thr Asp Phe	Glu Phe Asp Pro His Ser	455	460	465
Asn Phe Tyr His	Phe Thr Arg Pro Leu	Ile Lys Pro Gln Cys Ala	470	475	480
Ala Tyr Gly Lys	Ala Leu Asp Leu Ser	Leu Asn Ser Ile Phe Phe	485	490	495
Ile Gly Pro Asn	Gln Phe Glu Asn Leu	Pro Asp Ile Ala Cys Leu	500	505	510
Asn Leu Ser Ala	Asn Ser Asn Ala Gln	Val Leu Ser Gly Thr Glu	515	520	525
Phe Ser Ala Ile	Pro His Val Lys Tyr	Leu Asp Leu Thr Asn Asn	530	535	540
Arg Leu Asp Phe	Asp Asn Ala Ser Ala	Leu Thr Glu Leu Ser Asp	545	550	555
Leu Glu Val Leu	Asp Leu Ser Tyr Asn	Ser His Tyr Phe Arg Ile	560	565	570
Ala Gly Val Thr	His His Leu Glu Phe	Ile Gln Asn Phe Thr Asn	575	580	585
Leu Lys Val Leu	Asn Leu Ser His Asn	Asn Ile Tyr Thr Leu Thr	590	595	600
Asp Lys Tyr Asn	Leu Glu Ser Lys Ser	Leu Val Glu Leu Val Phe	605	610	615
Ser Gly Asn Arg	Leu Asp Ile Leu Trp	Asn Asp Asp Asp Asn Arg	620	625	630
Tyr Ile Ser Ile	Phe Lys Gly Leu Lys	Asn Leu Thr Arg Leu Asp			

Leu	Ser	Leu	Asn	Arg	Leu	Lys	His	Ile	Pro	Asn	Glu	Ala	Phe	Leu
				650					655					660
Asn	Leu	Pro	Ala	Ser	Leu	Thr	Glu	Leu	His	Ile	Asn	Asp	Asn	Met
				665					670					675
Leu	Lys	Phe	Phe	Asn	Trp	Thr	Leu	Leu	Gln	Gln	Phe	Pro	Arg	Leu
				680					685					690
Glu	Leu	Leu	Asp	Leu	Arg	Gly	Asn	Lys	Leu	Leu	Phe	Leu	Thr	Asp
				695					700					705
Ser	Leu	Ser	Asp	Phe	Thr	Ser	Ser	Leu	Arg	Thr	Leu	Leu	Leu	Ser
				710					715					720
His	Asn	Arg	Ile	Ser	His	Leu	Pro	Ser	Gly	Phe	Leu	Ser	Glu	Val
				725					730					735
Ser	Ser	Leu	Lys	His	Leu	Asp	Leu	Ser	Ser	Asn	Leu	Leu	Lys	Thr
				740					745					750
Ile	Asn	Lys	Ser	Ala	Leu	Glu	Thr	Lys	Thr	Thr	Thr	Lys	Leu	Ser
				755					760					765
Met	Leu	Glu	Leu	His	Gly	Asn	Pro	Phe	Glu	Cys	Thr	Cys	Asp	Ile
				770					775					780
Gly	Asp	Phe	Arg	Arg	Trp	Met	Asp	Glu	His	Leu	Asn	Val	Lys	Ile
				785					790					795
Pro	Arg	Leu	Val	Asp	Val	Ile	Cys	Ala	Ser	Pro	Gly	Asp	Gln	Arg
				800					805					810
Gly	Lys	Ser	Ile	Val	Ser	Leu	Glu	Leu	Thr	Thr	Cys	Val	Ser	Asp
				815					820					825
Val	Thr	Ala	Val	Ile	Leu	Phe	Phe	Phe	Thr	Phe	Phe	Ile	Thr	Thr
				830					835					840
Met	Val	Met	Leu	Ala	Ala	Leu	Ala	His	His	Leu	Phe	Tyr	Trp	Asp
				845					850					855
Val	Trp	Phe	Ile	Tyr	Asn	Val	Cys	Leu	Ala	Lys	Val	Lys	Gly	Tyr
				860					865					870
Arg	Ser	Leu	Ser	Thr	Ser	Gln	Thr	Phe	Tyr	Asp	Ala	Tyr	Ile	Ser
				875					880					885
Tyr	Asp	Thr	Lys	Asp	Ala	Ser	Val	Thr	Asp	Trp	Val	Ile	Asn	Glu
				890					895					900
Leu	Arg	Tyr	His	Leu	Glu	Glu	Ser	Arg	Asp	Lys	Asn	Val	Leu	Leu
				905					910					915
Cys	Leu	Glu	Glu	Arg	Asp	Trp	Asp	Pro	Gly	Leu	Ala	Ile	Ile	Asp
				920					925					930

Asn	Leu	Met	Gln	Ser	Ile	Asn	Gln	Ser	Lys	Lys	Thr	Val	Phe	Val	
				935						940				945	
Leu	Thr	Lys	Lys	Tyr	Ala	Lys	Ser	Trp	Asn	Phe	Lys	Thr	Ala	Phe	
				950					955					960	
Tyr	Leu	Ala	Leu	Gln	Arg	Leu	Met	Asp	Glu	Asn	Met	Asp	Val	Ile	
				965					970					975	
Ile	Phe	Ile	Leu	Leu	Glu	Pro	Val	Leu	Gln	His	Ser	Gln	Tyr	Leu	
				980					985					990	
Arg	Leu	Arg	Gln	Arg	Ile	Cys	Lys	Ser	Ser	Ile	Leu	Gln	Trp	Pro	
				995					1000					1005	
Asp	Asn	Pro	Lys	Ala	Glu	Gly	Leu	Phe	Trp	Gln	Thr	Leu	Arg	Asn	
				1010					1015					1020	
Val	Val	Leu	Thr	Glu	Asn	Asp	Ser	Arg	Tyr	Asn	Asn	Met	Tyr	Val	
				1025					1030					1035	
Asp	Ser	Ile	Lys	Gln	Tyr										
				1040											

<210> 499
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 499
 taaagaccga gctgtgaccg 20

<210> 500
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 500
 atccatgagc ctctgatggg 20

<210> 501
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 501
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<210> 502

<211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 502
 gccgagacaa aaacgttctc c 21

 <210> 503
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 503
 catccatgtt ctcatccatt agcc 24

 <210> 504
 <211> 46
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 504
 tcgacaacct catgcagagc atcaaccaaa gcaagaaaac agtatt 46

 <210> 505
 <211> 1738
 <212> DNA
 <213> Homo sapiens

 <400> 505
 ccaggtccaa ctgcacctcg gttctatcga ttgaattccc cggggatcct 50
 ctagagatcc ctgcacctcg acccacgcgt ccgccaagct ggccctgcac 100
 ggctgcaagg gaggctcctg tggacaggcc aggcagggtg gcctcaggag 150
 gtgcctccag gcggccagtg ggctgaggc ccagcaagg gctaggggtcc 200
 atctccagtc ccaggacaca gcagcggcca ccatggccac gcctgggctc 250
 cagcagcatc agcagcccc aggaccggg aggcacagggt ggccccacc 300
 acccgaggga gcagctcctg ccctgtccg ggggatgact gattctctc 350
 cgccaggcca ccagaggag aaggccacc cgctggagg cacaggccat 400
 gaggggctct caggaggtgc tgctgatgtg gcttctggtg ttggcagtgg 450
 gcggcacaga gcacgcctac cggcccggcc gtaggggtgtg tgctgtccgg 500

Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val	20	25	30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	35	40	45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	50	55	60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	65	70	75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	80	85	90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	95	100	105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	110	115	120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln	125	130	135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln	140	145	150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu	155	160	165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly	170	175	180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala	185	190	195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu	200	205	210
Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu	Ala	215	220	225
Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	Pro	Asp	Pro	Gly	Ser	Leu	Leu	230	235	240
Val	His	Ser	Phe	Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu	245	250	255
Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys	260	265	270
Lys	Asp	Ser															

<210> 507
 <211> 1700
 <212> DNA
 <213> Homo sapiens

<400> 507

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 ggccccagca agggctaggg tccatctcca gtcccaggac acagcagcgg 100
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 tggcagcaaa gttcagcttg gctgggcccg ctgtgagggg cttcgcgcta 200
 cgccctgcgg tgtcccgagg gctgaggtct cctcatcttc tccctagcag 250
 tggatgagca acccaacggg ggcccgggga ggggaactgg ccccgaggga 300
 gaggaacccc aaagccacat ctgtagccag gatgagcagt gtgaatccag 350
 gcagccccca ggaccgggga ggcacagggtg gccccacca cccggaggag 400
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 aggaggtgct gctgatgtgg cttctggtgt tggcagtggg cggcacagag 550
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ggagcctggg acccatggca caggccaggc agcccggagg ctgggtgggg 1650
cctcagtggg ggctgctgcc tgacccccag cacaataaaa atgaaacgtg 1700

<210> 508

<211> 273

<212> PRT

<213> Homo sapiens

<400> 508

Met	Arg	Gly	Ser	Gln	Glu	Val	Leu	Leu	Met	Trp	Leu	Leu	Val	Leu
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Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val
				20					25					30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val
				35					40					45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg
				50					55					60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg
				65					70					75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro
				80					85					90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala
				95					100					105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro
				110					115					120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln
				125					130					135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln
				140					145					150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu
				155					160					165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly
				170					175					180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala
				185					190					195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu
				200					205					210

Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu	Ala
				215					220					225
Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	Pro	Asp	Pro	Gly	Ser	Leu	Leu
				230					235					240
Val	His	Ser	Phe	Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu
				245					250					255
Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys
				260					265					270

Lys Asp Ser

<210> 509
 <211> 1538
 <212> DNA
 <213> Homo sapiens

<400> 509
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 ctgaggcccc agcaagggct agggctccatc tccagtcca ggacacagca 150
 gcggccacca tggccacgcc tgggctccag cagcatcagc agccccagg 200
 accggggagg cacaggtggc cccaccacc cggaggagca gtcctgccc 250
 ctgtccgggg gatgactgat tctcctcgc caggccacc agaggagaag 300
 gccacccgc ctggaggcac aggccatgag gggctctcag gaggtgctgc 350
 tgatgtggct tctggtgttg gcagtggcg gcacagagca cgcctaccgg 400
 cccggccgta ggggtgtgtg tgtccgggt caccggggacc ctgtctccga 450
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 accgggcctg cagcacctac cgaaccatct ataggaccgc ctaccgccgc 550
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 tgctaggagg ggcggctgtc cccagcgtg cgtcaacacc gccggcagtt 800
 actggtgcca gtgttgggag gggcacagcc tgtctgcaga cggtaactc 850
 tgtgtgcca agggagggcc cccaggggtg gcccacaacc cgacaggagt 900
 ggacagtgca atgaaggaag aagtgcagag gctgcagtcc aggggtggacc 950

tgctggagga gaagctgcag ctggtgctgg cccactgca cagcctggcc 1000
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<210> 510

<211> 273

<212> PRT

<213> Homo sapiens

<400> 510

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				20					25					30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val
				35					40					45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg
				50					55					60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg
				65					70					75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro
				80					85					90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala
				95					100					105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro
				110					115					120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln
				125					130					135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln

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Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu					
	155		160		165
Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys Gly					
	170		175		180
Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala					
	185		190		195
Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Leu					
	200		205		210
Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala					
	215		220		225
Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu					
	230		235		240
Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu					
	245		250		255
Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys					
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Lys Asp Ser

<210> 511

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 511

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<210> 512

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 512

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<210> 513

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 513
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<210> 514
 <211> 2690
 <212> DNA
 <213> Homo sapiens

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 <221> unsure
 <222> 2039-2065
 <223> unknown base

<400> 514
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 agttgggtct ccgtgtttca ggccggctcc cccttcctgg tctcccttct 200
 cccgctgggc cggtttatcg ggaggagatt gtcttccagg gctagcaatt 250
 ggacttttga tgatgtttga ccagcggca ggaatagcag gcaacgtgat 300
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<210> 515

<211> 364

<212> PRT

<213> Homo sapiens

<400> 515

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Met	Ala	Arg	Gln	Lys	Gly	Ile	Phe	Tyr	Leu	Thr	Leu	Phe	Leu	Ile	35	40	45	
Leu	Gly	Thr	Cys	Thr	Leu	Phe	Phe	Ala	Phe	Glu	Cys	Arg	Tyr	Leu	50	55	60	
Ala	Val	Gln	Leu	Ser	Pro	Ala	Ile	Pro	Val	Phe	Ala	Ala	Met	Leu	65	70	75	
Phe	Leu	Phe	Ser	Met	Ala	Thr	Leu	Leu	Arg	Thr	Ser	Phe	Ser	Asp	80	85	90	
Pro	Gly	Val	Ile	Pro	Arg	Ala	Leu	Pro	Asp	Glu	Ala	Ala	Phe	Ile	95	100	105	
Glu	Met	Glu	Ile	Glu	Ala	Thr	Asn	Gly	Ala	Val	Pro	Gln	Gly	Gln	110	115	120	
Arg	Pro	Pro	Pro	Arg	Ile	Lys	Asn	Phe	Gln	Ile	Asn	Asn	Gln	Ile	125	130	135	
Val	Lys	Leu	Lys	Tyr	Cys	Tyr	Thr	Cys	Lys	Ile	Phe	Arg	Pro	Pro	140	145	150	
Arg	Ala	Ser	His	Cys	Ser	Ile	Cys	Asp	Asn	Cys	Val	Glu	Arg	Phe	155	160	165	
Asp	His	His	Cys	Pro	Trp	Val	Gly	Asn	Cys	Val	Gly	Lys	Arg	Asn	170	175	180	
Tyr	Arg	Tyr	Phe	Tyr	Leu	Phe	Ile	Leu	Ser	Leu	Ser	Leu	Leu	Thr	185	190	195	
Ile	Tyr	Val	Phe	Ala	Phe	Asn	Ile	Val	Tyr	Val	Ala	Leu	Lys	Ser	200	205	210	
Leu	Lys	Ile	Gly	Phe	Leu	Glu	Thr	Leu	Lys	Glu	Thr	Pro	Gly	Thr	215	220	225	
Val	Leu	Glu	Val	Leu	Ile	Cys	Phe	Phe	Thr	Leu	Trp	Ser	Val	Val				

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Gly Leu Thr Gly	Phe His Thr Phe Leu	Val Ala Leu Asn Gln Thr			
	245	250			255
Thr Asn Glu Asp	Ile Lys Gly Ser Trp	Thr Gly Lys Asn Arg Val			
	260	265			270
Gln Asn Pro Tyr	Ser His Gly Asn Ile	Val Lys Asn Cys Cys Glu			
	275	280			285
Val Leu Cys Gly	Pro Leu Pro Pro Ser	Val Leu Asp Arg Arg Gly			
	290	295			300
Ile Leu Pro Leu	Glu Glu Ser Gly Ser	Arg Pro Pro Ser Thr Gln			
	305	310			315
Glu Thr Ser Ser	Ser Leu Leu Pro Gln	Ser Pro Ala Pro Thr Glu			
	320	325			330
His Leu Asn Ser	Asn Glu Met Pro Glu	Asp Ser Ser Thr Pro Glu			
	335	340			345
Glu Met Pro Pro	Pro Glu Pro Pro Glu	Pro Pro Gln Glu Ala Ala			
	350	355			360
Glu Ala Glu Lys					

<210> 516
 <211> 255
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 36, 38, 88, 118, 135, 193, 213, 222
 <223> unknown base

<400> 516
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 cccctgggtg gggaattgtg ttggaaagag gaactaccgc tanttctacc 200
 tcttcacccct ttntctctcc cncctcaca tctatgtctt cgccttcaac 250
 atcgt 255

<210> 517
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 517

caacgtgatt tcaaagctgg gctc 24

<210> 518

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 518

gcctcgatc aagaatttcc 20

<210> 519

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 519

agtggaagtc gacctccc 18

<210> 520

<211> 24

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<223> Synthetic oligonucleotide probe

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ctcacctgaa atctctcata gcc 24

<210> 521

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 521

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<210> 522

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 522

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caaaaaagaa gaaaaagaag aagaaaaaaa atcatgaaaa ccatccagcc 150
aaaaatgcac aattctatct cttgggcaat cttcacgggg ctggctgctc 200
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 <211> 344
 <212> PRT
 <213> Homo sapiens

<400> 523

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				20					25					30	
Val	Arg	Ser	Gly	Asp	Ala	Thr	Phe	Pro	Lys	Ala	Met	Asp	Asn	Val	
				35					40					45	
Thr	Val	Arg	Gln	Gly	Glu	Ser	Ala	Thr	Leu	Arg	Cys	Thr	Ile	Asp	
				50					55					60	
Asn	Arg	Val	Thr	Arg	Val	Ala	Trp	Leu	Asn	Arg	Ser	Thr	Ile	Leu	
				65					70					75	
Tyr	Ala	Gly	Asn	Asp	Lys	Trp	Cys	Leu	Asp	Pro	Arg	Val	Val	Leu	
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Leu	Ser	Asn	Thr	Gln	Thr	Gln	Tyr	Ser	Ile	Glu	Ile	Gln	Asn	Val	
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Asp	Val	Tyr	Asp	Glu	Gly	Pro	Tyr	Thr	Cys	Ser	Val	Gln	Thr	Asp	
				110					115					120	
Asn	His	Pro	Lys	Thr	Ser	Arg	Val	His	Leu	Ile	Val	Gln	Val	Ser	
				125					130					135	
Pro	Lys	Ile	Val	Glu	Ile	Ser	Ser	Asp	Ile	Ser	Ile	Asn	Glu	Gly	
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Asn	Asn	Ile	Ser	Leu	Thr	Cys	Ile	Ala	Thr	Gly	Arg	Pro	Glu	Pro	
				155					160					165	
Thr	Val	Thr	Trp	Arg	His	Ile	Ser	Pro	Lys	Ala	Val	Gly	Phe	Val	
				170					175					180	
Ser	Glu	Asp	Glu	Tyr	Leu	Glu	Ile	Gln	Gly	Ile	Thr	Arg	Glu	Gln	
				185					190					195	
Ser	Gly	Asp	Tyr	Glu	Cys	Ser	Ala	Ser	Asn	Asp	Val	Ala	Ala	Pro	
				200					205					210	
Val	Val	Arg	Arg	Val	Lys	Val	Thr	Val	Asn	Tyr	Pro	Pro	Tyr	Ile	
				215					220					225	
Ser	Glu	Ala	Lys	Gly	Thr	Gly	Val	Pro	Val	Gly	Gln	Lys	Gly	Thr	

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245	250	255
Tyr Lys Asp Asp Lys Arg Leu Ile Glu	Gly Lys Lys Gly Val Lys	
260	265	270
Val Glu Asn Arg Pro Phe Leu Ser Lys	Leu Ile Phe Phe Asn Val	
275	280	285
Ser Glu His Asp Tyr Gly Asn Tyr Thr	Cys Val Ala Ser Asn Lys	
290	295	300
Leu Gly His Thr Asn Ala Ser Ile Met	Leu Phe Gly Pro Gly Ala	
305	310	315
Val Ser Glu Val Ser Asn Gly Thr Ser	Arg Arg Ala Gly Cys Val	
320	325	330
Trp Leu Leu Pro Leu Leu Val Leu His	Leu Leu Leu Lys Phe	
335	340	

<210> 524
 <211> 503
 <212> DNA
 <213> Homo sapiens

<400> 524
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 gag 503

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 <212> DNA
 <213> Homo sapiens

<400> 525
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<213> Homo sapiens

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Asp	Ser	Lys	Ser	Ser	Asn	Ser	Asn	Val	Ile	Gln	Val	Asp	Gln	Ser	
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Ser	Ile	Ser	Glu	Leu	Gln	Ala	Leu	Ala	Pro	Ser	Met	Asp	Trp	Leu	
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Phe Glu Ser Ala	Gln Glu Lys Leu Leu	Glu Thr Leu Tyr Gly	Thr		
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Lys Lys Ser Cys	Val Pro Arg Trp Gln	Thr Cys Ile Ser Asn	Thr		
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Thr Phe Asp Arg	Gln Ser Lys Glu Ile	Ala Glu Gly Met Ile	Ser		
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 <212> DNA
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 <222> 1478, 3978, 4057-4058, 4070
 <223> unknown base

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<211> 1380

<212> DNA

<213> Homo sapiens

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<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<211> 24

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<213> Artificial Sequence

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 Met Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu
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 Glu Asp Gly Ala Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile
 65 70 75
 Ile Phe Ala Gly Gly Asp Lys Trp Ser Val Asp Pro Arg Val Ser
 80 85 90
 Ile Ser Thr Leu Asn Lys Arg Asp Tyr Ser Leu Gln Ile Gln Asn
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 Val Asp Val Thr Asp Asp Gly Pro Tyr Thr Cys Ser Val Gln Thr
 110 115 120
 Gln His Thr Pro Arg Thr Met Gln Val His Leu Thr Val Gln Val
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 Pro Pro Lys Ile Tyr Asp Ile Ser Asn Asp Met Thr Val Asn Glu
 140 145 150
 Gly Thr Asn Val Thr Leu Thr Cys Leu Ala Thr Gly Lys Pro Glu
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 Pro Ser Ile Ser Trp Arg His Ile Ser Pro Ser Ala Lys Pro Phe
 170 175 180
 Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr Arg Asp Gln
 185 190 195
 Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Ala Val Ser Phe Pro
 200 205 210
 Asp Val Arg Lys Val Lys Val Val Val Asn Phe Ala Pro Thr Ile
 215 220 225
 Gln Glu Ile Lys Ser Gly Thr Val Thr Pro Gly Arg Ser Gly Leu

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Tyr Lys Gly Glu Lys Lys Leu Phe Asn	Gly	Gln	Gln	Gly	Ile Ile
	260		265		270
Ile Gln Asn Phe Ser Thr Arg Ser Ile	Leu	Thr	Val	Thr	Asn Val
	275		280		285
Thr Gln Glu His Phe Gly Asn Tyr Thr	Cys	Val	Ala	Ala	Asn Lys
	290		295		300
Leu Gly Thr Thr Asn Ala Ser Leu Pro	Leu	Asn	Pro	Pro	Ser Thr
	305		310		315
Ala Gln Tyr Gly Ile Thr Gly Ser Ala	Asp	Val	Leu	Phe	Ser Cys
	320		325		330
Trp Tyr Leu Val Leu Thr Leu Ser Ser	Phe	Thr	Ser	Ile	Phe Tyr
	335		340		345
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	350				

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 <212> DNA
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Gly	Leu	Leu	Val	Val	Gln	Val	Leu	Asn	Leu	Gln	Ala	Arg	Leu	Arg	
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Val	Leu	Glu	Met	Tyr	Phe	Leu	Asn	Asp	Thr	Leu	Ala	Ala	Glu	Asp	
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Ser	Pro	Ser	Phe	Ser	Leu	Leu	Gln	Ser	Ala	His	Pro	Gly	Glu	His	
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Leu	Ala	Gln	Gly	Ala	Ser	Arg	Leu	Gln	Val	Leu	Gln	Ala	Gln	Leu	
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Thr	Trp	Val	Arg	Val	Ser	His	Glu	His	Leu	Leu	Gln	Arg	Val	Asp	
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335	340	345
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Gly Arg Lys Gly Glu Ser Gly Val Pro Gly Pro Ala Gly Val Lys		
365	370	375
Gly Glu Gln Gly Ser Pro Gly Leu Ala Gly Pro Lys Gly Ala Pro		
380	385	390
Gly Gln Ala Gly Gln Lys Gly Asp Gln Gly Val Lys Gly Ser Ser		
395	400	405
Gly Glu Gln Gly Val Lys Gly Glu Lys Gly Glu Arg Gly Glu Asn		
410	415	420
Ser Val Ser Val Arg Ile Val Gly Ser Ser Asn Arg Gly Arg Ala		
425	430	435
Glu Val Tyr Tyr Ser Gly Thr Trp Gly Thr Ile Cys Asp Asp Glu		
440	445	450
Trp Gln Asn Ser Asp Ala Ile Val Phe Cys Arg Met Leu Gly Tyr		
455	460	465
Ser Lys Gly Arg Ala Leu Tyr Lys Val Gly Ala Gly Thr Gly Gln		
470	475	480
Ile Trp Leu Asp Asn Val Gln Cys Arg Gly Thr Glu Ser Thr Leu		
485	490	495
Trp Ser Cys Thr Lys Asn Ser Trp Gly His His Asp Cys Ser His		
500	505	510
Glu Glu Asp Ala Gly Val Glu Cys Ser Val		
515	520	

<210> 615
 <211> 647
 <212> DNA
 <213> Homo Sapien

<400> 615
 cccacgcgctc cgaaggcaga caaaggttca tttgtaaaga agctccttcc 50
 agcacctcct ctctttctcct tttgcccaaa ctcaccaggt gagtgtgagc 100
 atttaagaag catcctctgc caagaccaaa aggaaagaag aaaaagggcc 150
 aaaagccaaa atgaaactga tgggtacttgt tttcaccatt gggctaactt 200
 tgctgctagg agttcaagcc atgcctgcaa atcgctcttc ttgctacaga 250
 aagatactaa aagatcacia ctgtcacaac cttccggaag gagtagctga 300

cctgacacag attgatgtca atgtccagga tcatttctgg gatgggaagg 350
 gatgtgagat gatctgttac tgcaacttca gcgaattgct ctgctgcca 400
 aaagacgttt tctttggacc aaagatctct ttcgtgattc cttgcaacaa 450
 tcaatgagaa tcttcatgta ttctggagaa caccattcct gatttcccac 500
 aaactgcact acatcagtat aactgcattt ctagtttcta tatagtgcaa 550
 tagagcatag attctataaa ttcttacttg tctaagacaa gtaaactctgt 600
 gttaaacaag tagtaataaa agttaattca atctaaaaaa aaaaaa 647

<210> 616
 <211> 98
 <212> PRT
 <213> Homo Sapien

<400> 616
 Met Lys Leu Met Val Leu Val Phe Thr Ile Gly Leu Thr Leu Leu
 1 5 10 15
 Leu Gly Val Gln Ala Met Pro Ala Asn Arg Leu Ser Cys Tyr Arg
 20 25 30
 Lys Ile Leu Lys Asp His Asn Cys His Asn Leu Pro Glu Gly Val
 35 40 45
 Ala Asp Leu Thr Gln Ile Asp Val Asn Val Gln Asp His Phe Trp
 50 55 60
 Asp Gly Lys Gly Cys Glu Met Ile Cys Tyr Cys Asn Phe Ser Glu
 65 70 75
 Leu Leu Cys Cys Pro Lys Asp Val Phe Phe Gly Pro Lys Ile Ser
 80 85 90
 Phe Val Ile Pro Cys Asn Asn Gln
 95

<210> 617
 <211> 2558
 <212> DNA
 <213> Homo Sapien

<400> 617
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 cagcctgcag ggctgataag cgaggcatta gtgagattga gagagacttt 100
 accccgccgt ggtgggttga gggcgcgag tagagcagca gcacaggcgc 150
 ggggtcccggg aggccggctc tgctcgcgcc gagatgtgga atctccttca 200
 cgaaaccgac tcggctgtgg ccaccgcgcg ccgcccgcgc tggctgtgcg 250
 ctggggcgct ggtgctggcg ggtggcttct ttctcctcgg cttcctcttc 300

ggggtggttta taaaatcctc caatgaagct actaacatta ctccaaagca 350
 taatatgaaa gcatttttgg atgaattgaa agctgagaac atcaagaagt 400
 tcttacataa ttttacacag ataccacatt tagcaggaac agaacaaaac 450
 tttcagcttg caaagcaaat tcaatcccag tggaaagaat ttggcctgga 500
 ttctgttgag ctagctcatt atgatgtcct gttgtcctac ccaaataaga 550
 ctcatcccaa ctacatctca ataattaatg aagatggaaa tgagattttc 600
 aacacatcat tatttgaacc acctcctoca ggatatgaaa atgtttcgga 650
 tattgtacca cttttcagtg ctttctctcc tcaaggaatg ccagagggcg 700
 atctagtgtg tgtaaactat gcacgaactg aagacttctt taaattggaa 750
 cgggacatga aatcaattg ctctgggaaa attgtaattg ccagatatgg 800
 gaaagttttc agaggaaata aggttaaaaa tgcccagctg gcaggggccca 850
 aaggagtcac tctctactcc gacctgctg actactttgc tctgggggtg 900
 aagtcctatc cagacggttg gaatcttcct ggaggtggtg tccagcgtgg 950
 aaatatccta aatctgaatg gtgcaggaga ccctctcaca ccaggttacc 1000
 cagcaaataa atatgcttat aggcgtggaa ttgcagaggc tggttggtctt 1050
 ccaagtattc ctgttcatcc aattggatac tatgatgcac agaagctcct 1100
 agaaaaaatg ggtggctcag caccaccaga tagcagctgg agagggaagtc 1150
 tcaaagtgcc ctacaatgtt ggacctggct ttactggaaa cttttctaca 1200
 caaaaagtca agatgcacat ccactctacc aatgaagtga cgagaattta 1250
 caatgtgata ggtactctca gaggagcagt ggaaccagac agatatgtca 1300
 ttctgggagg tcaccgggac tcatgggtgt ttggtggtat tgaccctcag 1350
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 aaaggaaggg tggagaccta gaagaacaat ttgttttgca agctgggatg 1450
 cagaagaatt tggctctctt ggttctactg agtgggcaga ggagaattca 1500
 agactccttc aagagcgtgg cgtggcttat attaagctg actcatctat 1550
 agaaggaaac tacactctga gagttgattg tacaccgctg atgtacagct 1600
 tgggtacacaa cctaacaaaa gagctgaaaa gccctgatga aggctttgaa 1650
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 cagtggcatg cccaggataa gcaaattggg atctggaaat gattttgagg 1750

tgtttttcca acgacttgga attgcttcag gcagagcaag gtataactaaa 1800
 aattgggaaa caaacaatt cagcggctat cactgtatc acagtgtcta 1850
 tgaaacatat gagttggtgg aaaagtttta tgatccaatg tttaaatac 1900
 acctcactgt ggcccagggt cgaggaggga tgggtgtttga gctagccaat 1950
 tccatagtgc tcccttttga ttgtcgagat tatgctgtag ttttaagaaa 2000
 gtatgctgac aaaatctaca gtatttctat gaaacatcca caggaaatga 2050
 agacatacag tgtatcattt gattcacttt tttctgcagt aaagaatttt 2100
 acagaaattg cttccaagtt cagtgaaga ctccaggact ttgacaaaag 2150
 caaccaata gtattaagaa tgatgaatga tcaactcatg tttctggaaa 2200
 gagcatttat tgatccatta gggttaccag acaggccttt ttataggcat 2250
 gtcatttatg ctccaagcag ccacaacaag tatgcagggg agtcattccc 2300
 aggaatttat gatgctctgt ttgatattga aagcaaagtg gacccttcca 2350
 aggcctgggg agaagtgaag agacagattt atgttgcagc cttcacagt 2400
 caggcagctg cagagacttt gagtgaagta gcctaagagg attttttaga 2450
 gaatccgtat tgaatttgtg tggatgtca ctcaagaa atcgtaatgg 2500
 gtatatgat aaattttaaa attggtatat ttgaaataaa gttgaatatt 2550
 atatataa 2558

<210> 618

<211> 750

<212> PRT

<213> Homo Sapien

<400> 618

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Arg	Arg	Pro	Arg	Trp	Leu	Cys	Ala	Gly	Ala	Leu	Val	Leu	Ala	Gly
				20					25					30

Gly	Phe	Phe	Leu	Leu	Gly	Phe	Leu	Phe	Gly	Trp	Phe	Ile	Lys	Ser
				35					40					45

Ser	Asn	Glu	Ala	Thr	Asn	Ile	Thr	Pro	Lys	His	Asn	Met	Lys	Ala
				50					55					60

Phe	Leu	Asp	Glu	Leu	Lys	Ala	Glu	Asn	Ile	Lys	Lys	Phe	Leu	His
				65					70					75

Asn	Phe	Thr	Gln	Ile	Pro	His	Leu	Ala	Gly	Thr	Glu	Gln	Asn	Phe
				80					85					90

Gln	Leu	Ala	Lys	Gln	Ile	Gln	Ser	Gln	Trp	Lys	Glu	Phe	Gly	Leu	
				95					100					105	
Asp	Ser	Val	Glu	Leu	Ala	His	Tyr	Asp	Val	Leu	Leu	Ser	Tyr	Pro	
				110					115					120	
Asn	Lys	Thr	His	Pro	Asn	Tyr	Ile	Ser	Ile	Ile	Asn	Glu	Asp	Gly	
				125					130					135	
Asn	Glu	Ile	Phe	Asn	Thr	Ser	Leu	Phe	Glu	Pro	Pro	Pro	Pro	Gly	
				140					145					150	
Tyr	Glu	Asn	Val	Ser	Asp	Ile	Val	Pro	Pro	Phe	Ser	Ala	Phe	Ser	
				155					160					165	
Pro	Gln	Gly	Met	Pro	Glu	Gly	Asp	Leu	Val	Tyr	Val	Asn	Tyr	Ala	
				170					175					180	
Arg	Thr	Glu	Asp	Phe	Phe	Lys	Leu	Glu	Arg	Asp	Met	Lys	Ile	Asn	
				185					190					195	
Cys	Ser	Gly	Lys	Ile	Val	Ile	Ala	Arg	Tyr	Gly	Lys	Val	Phe	Arg	
				200					205					210	
Gly	Asn	Lys	Val	Lys	Asn	Ala	Gln	Leu	Ala	Gly	Ala	Lys	Gly	Val	
				215					220					225	
Ile	Leu	Tyr	Ser	Asp	Pro	Ala	Asp	Tyr	Phe	Ala	Pro	Gly	Val	Lys	
				230					235					240	
Ser	Tyr	Pro	Asp	Gly	Trp	Asn	Leu	Pro	Gly	Gly	Gly	Val	Gln	Arg	
				245					250					255	
Gly	Asn	Ile	Leu	Asn	Leu	Asn	Gly	Ala	Gly	Asp	Pro	Leu	Thr	Pro	
				260					265					270	
Gly	Tyr	Pro	Ala	Asn	Glu	Tyr	Ala	Tyr	Arg	Arg	Gly	Ile	Ala	Glu	
				275					280					285	
Ala	Val	Gly	Leu	Pro	Ser	Ile	Pro	Val	His	Pro	Ile	Gly	Tyr	Tyr	
				290					295					300	
Asp	Ala	Gln	Lys	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ala	Pro	Pro	
				305					310					315	
Asp	Ser	Ser	Trp	Arg	Gly	Ser	Leu	Lys	Val	Pro	Tyr	Asn	Val	Gly	
				320					325					330	
Pro	Gly	Phe	Thr	Gly	Asn	Phe	Ser	Thr	Gln	Lys	Val	Lys	Met	His	
				335					340					345	
Ile	His	Ser	Thr	Asn	Glu	Val	Thr	Arg	Ile	Tyr	Asn	Val	Ile	Gly	
				350					355					360	
Thr	Leu	Arg	Gly	Ala	Val	Glu	Pro	Asp	Arg	Tyr	Val	Ile	Leu	Gly	
				365					370					375	
Gly	His	Arg	Asp	Ser	Trp	Val	Phe	Gly	Gly	Ile	Asp	Pro	Gln	Ser	

	380		385		390
Gly Ala Ala Val	Val His Glu Ile Val	Arg Ser Phe Gly Thr	Leu		
	395	400	405		
Lys Lys Glu Gly	Trp Arg Pro Arg Arg	Thr Ile Leu Phe Ala	Ser		
	410	415	420		
Trp Asp Ala Glu	Glu Phe Gly Leu Leu	Gly Ser Thr Glu Trp	Ala		
	425	430	435		
Glu Glu Asn Ser	Arg Leu Leu Gln Glu	Arg Gly Val Ala Tyr	Ile		
	440	445	450		
Asn Ala Asp Ser	Ser Ile Glu Gly Asn	Tyr Thr Leu Arg Val	Asp		
	455	460	465		
Cys Thr Pro Leu	Met Tyr Ser Leu Val	His Asn Leu Thr Lys	Glu		
	470	475	480		
Leu Lys Ser Pro	Asp Glu Gly Phe Glu	Gly Lys Ser Leu Tyr	Glu		
	485	490	495		
Ser Trp Thr Lys	Lys Ser Pro Ser Pro	Glu Phe Ser Gly Met	Pro		
	500	505	510		
Arg Ile Ser Lys	Leu Gly Ser Gly Asn	Asp Phe Glu Val Phe	Phe		
	515	520	525		
Gln Arg Leu Gly	Ile Ala Ser Gly Arg	Ala Arg Tyr Thr Lys	Asn		
	530	535	540		
Trp Glu Thr Asn	Lys Phe Ser Gly Tyr	Pro Leu Tyr His Ser	Val		
	545	550	555		
Tyr Glu Thr Tyr	Glu Leu Val Glu Lys	Phe Tyr Asp Pro Met	Phe		
	560	565	570		
Lys Tyr His Leu	Thr Val Ala Gln Val	Arg Gly Gly Met Val	Phe		
	575	580	585		
Glu Leu Ala Asn	Ser Ile Val Leu Pro	Phe Asp Cys Arg Asp	Tyr		
	590	595	600		
Ala Val Val Leu	Arg Lys Tyr Ala Asp	Lys Ile Tyr Ser Ile	Ser		
	605	610	615		
Met Lys His Pro	Gln Glu Met Lys Thr	Tyr Ser Val Ser Phe	Asp		
	620	625	630		
Ser Leu Phe Ser	Ala Val Lys Asn Phe	Thr Glu Ile Ala Ser	Lys		
	635	640	645		
Phe Ser Glu Arg	Leu Gln Asp Phe Asp	Lys Ser Asn Pro Ile	Val		
	650	655	660		
Leu Arg Met Met	Asn Asp Gln Leu Met	Phe Leu Glu Arg Ala	Phe		
	665	670	675		

Ile	Asp	Pro	Leu	Gly	Leu	Pro	Asp	Arg	Pro	Phe	Tyr	Arg	His	Val
				680					685					690
Ile	Tyr	Ala	Pro	Ser	Ser	His	Asn	Lys	Tyr	Ala	Gly	Glu	Ser	Phe
				695					700					705
Pro	Gly	Ile	Tyr	Asp	Ala	Leu	Phe	Asp	Ile	Glu	Ser	Lys	Val	Asp
				710					715					720
Pro	Ser	Lys	Ala	Trp	Gly	Glu	Val	Lys	Arg	Gln	Ile	Tyr	Val	Ala
				725					730					735
Ala	Phe	Thr	Val	Gln	Ala	Ala	Ala	Glu	Thr	Leu	Ser	Glu	Val	Ala
				740					745					750

<210> 619
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 619
 agatgtgaag gtgcaggtgt gccg 24

<210> 620
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 620
 gaacatcagc gctcccggtg attcc 25

<210> 621
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 621
 ccagcctttg aatggtacaa aggagagaag aagctcttca atggcc 46

<210> 622
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 622
 ccaaactcac ccagtgagtg tgagc 25

